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HUNT'S
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AND
COMMERCIAL REVIEW.

AUGUST, 1853.

Art. I.—FISHERIES OF THE AMERICAN SEAS.*

AMONG the documents accompanying the last annual report of the Secretary of the Treasury, is an elaborate history of the fisheries pursued in the American seas, by all the nations that have hitherto visited them, prepared in conformity to a request of the late Secretary, by Hon. Lorenzo Sabine, of Farmingham, Mass. Mr. Sabine has been for some years known as one of the ablest and best informed writers in the country upon the subject of the fisheries, and chiefly upon this ground was elected a member of the late Congress, from the then IVth district of Massachusetts, to fill the vacancy caused by the death of Hon. Benjamin Thompson, although of that district the fisheries could scarcely be called an important interest. Mr. Sabine has been for upwards of twenty years engaged in collecting the material for his history, which, although extending to above three hundred pages, he avers, comprehends but a "part" of his plan. Of course a great amount of interesting matter is brought together, and the work is well worth the perusal of those who would understand the concerns of a business which has occupied a leading place among the interests of all the great commercial nations.

It is not our purpose to follow the chronological detail of Mr. Sabine's facts, as a series of historical and statistical essays upon the fisheries, from the pen of the present writer, have lately been published in the *Merchants' Magazine*.† Attention will be paid to Mr. Sabine's treatment of certain points, and some of his facts will be noticed, but the main design is to give a supplementary chapter to the former articles, composed of matter which we have had for some time on hand for that purpose, and mainly derived from sources which it would appear Mr. Sabine has either not consulted or has made but a limited use of. Let us not be understood as qualifying the opinion just expressed. If our historian has not made use of *all* available

* Report on the Principal Fisheries of the American Seas: By Lorenzo Sabine.
† See *Merchants' Magazine*, vol. xxvi., pp. 19, 159, 237, 416.

resources, the fact is quite consistent with a range and depth of research upon which few writers, on whatever subject, have the temerity to venture; and which we the more appreciate as that *this* subject is one, in its nature so inherently *dry*, and affording so slight promise of pecuniary remuneration, that the prolonged labor of Mr. Sabine bears much the aspect of an act of self-devotion. And there is less reason for complaint, as that within the somewhat extended limits of the work, there is very little matter which is not well worth its room. But a few suggestions as to what we deem deficiencies will not be considered captious, and may be of service to the author in completing the other portion of his design, or in revising the present for republication, should he intend to put it in a better form.

In the opening of his subject we meet with some disappointment. The part which relates to the *earliest* visitation of the American seas, in connection with the fishery, so lightly touched upon, is, we think, well worth a chapter to itself, involving as it does the very interesting question of the first European discovery of the American continent. It strikes us that *judicious* historians, usually so considered, whom Mr. Sabine seems too much inclined to follow, have been rather too *free doubters* in regard to everything of a traditional character connected with the latter great event. In their style our author simply mentions in one place the tradition of the Biscayan fishermen having visited Newfoundland before the time of Columbus, which is instantly "dismissed," as entirely improbable, it not being even thought worth while to give the date of the pretended voyage. It is stated to have taken place about the year 1400, a period which has at least not one common objection of traditional matters, of extending its pretensions to an absurdly remote antiquity. Yet, at another place, he mentions respectfully the map of Andre Bianco, constructed in 1436, which, he says, "authorizes the conjecture that Newfoundland was known to fishermen before the voyage of Cabot in 1497." However that may be, we think that when the hardy and adventurous character of the Biscayan fishermen, their situation, the long previous use of the mariner's compass, together with the great and continual indebtedness of the world to the *accidents* of navigation for the progress of discovery are considered, there is no vast improbability in the story of those fishermen having been at Newfoundland. And the occasion for incredulity is still further decreased when we are told, as an undoubted fact, that the English, who were very far from being a maritime people at this period, were fishing upon the shores of Iceland, before 1415, being then within a few hundred miles of the coast of Greenland.

Of the Icelandic discovery of Newfoundland or Labrador Mr. Sabine makes no mention whatever,—yet to us the record of the event appears quite as well substantiated, and its occurrence quite as much a probability as that of any other matter recorded in other annals of the years 1000 and 1001. But we leave this topic for another occasion, and come to undisputed history.

In 1497, John and Sebastian Cabot made the discovery of both Newfoundland and Labrador—the former was long supposed to have been their *Prima Vistu*, but it is now considered their "first-seen" land was the Labrador coast. On their return, in the account published by Sebastian, he mentioned among the resources of the new region, that "it yieldeth plenty of fish, and those very great, as seals, and those which we call salmonns: there are soles, also, above a yard in length; but especially there is great abundance of that kinde of fish which savages call *baccalaos*," (the codfish.)

Of the next voyage made by Sebastian, in 1498, no account was published. It is denied that he *landed* on the coasts, and yet we find it stated by English writers that he carried back a *valuable cargo*. If he did not land at all, of what could this cargo consist but *fish*?

In 1500, Gaspar Cortoreal, in the service of the king of Portugal, was at Labrador, a fact which Sabine does not mention. He too carried back a valuable cargo, but not taken from the seas. Cortoreal was a "fisher of men," and his fare consisted of fifty Indians. He undertook soon after to repeat the enterprise, but failed, becoming, probably, himself the "prey of fishes."

At the time of the discovery of America, the regulations of the Catholic church regarding food were rigorously observed in every Christian country of Europe, and fish was a prime article in every market. The quantity consumed was immense, and the increasing demand, together with the peculiar fluctuations to which the fishing business is ever subject, and which were exemplified several times in the total disappearance of herring from the coast of Sweden, where a very extensive fishery was at other times carried on, it became doubtful if the supply would long hold out. The excitement which followed the voyage of Cabot and other adventurers, was not *alone* that passion for products like those of the East, of which historians speak as the sole idea existing in regard to the new world. There was a *fishery excitement* following Cabot's account of the great abundance and variety of fish there found. It was hoped, now, to obtain plenty for all demands, and to provide also an agreeable diversity, in place of the unbroken monotony of the pickled herring of the Dutch. The hope of fortunes prompted merchants to undertake the enterprise of an American fishery. France led in the business, making regular voyages there, at least as early as 1504. Of England, Spain, and Portugal, the first accounts are in 1517, when there were fifty vessels of all sorts at Newfoundland. While England adventured so far for the sake of fish, the rich fishery on her own coast was entirely in the hands of the Dutch, who were, for that reason, contented to offer them no competition at Newfoundland.

Out of the success of this early fishery arose the attempts of the French to settle Canada, in 1534, and of the English to colonize Newfoundland, in 1536, both efforts being unsuccessful.

We come now to the commencement of a series of acts adopted by the English government for the encouragement of their fisheries in America, which we design particularly to notice. This is one point on which we wish Mr. Sabine had bestowed more attention. Nothing would have better illustrated the main branch of his subject, the progress of the fisheries of the United States, than a full exposition of the English measures regarding the fisheries, and of the results thereby produced. Had he seen and well examined the voluminous commercial compilations* of Anderson and McPherson, he could hardly have restrained himself the pleasure of a new feature in his work, immensely augmenting its value.

The first of these measures of encouragement was an act of parliament in 1548, imposing a heavy penalty on all who should eat flesh on fish-days. Another act of the same year forbid the admiralty officers to make excursions for the privilege of carrying on this fishery. In 1563, parliament declared it unlawful to eat flesh on Wednesdays and Saturdays, affixing a

* *Annals of Commerce from the Earliest Times to the Year 1800, in 4 vols.*

penalty of £3, except by special license purchased of the government. The purpose directly professed in this act, was the increase of the shipping, while, to show its freedom of religious motive, a penalty was affixed to the utterance of any sentiment subjecting human salvation to the papal dietetics.

In 1577, according to the statements which we have before given, the French had engaged in the American fisheries, 150 vessels; Spain had about 100 vessels; Portugal had 50; while England had but 15—total 315. A part of the English fishery is said to have been still at Iceland, accounting for their diminutive fleet at the banks; the fact is, however, that England was then really very humble in her fisheries, as she was also in regard to Commerce. But it is stated, and Mr. Sabine repeats the story, that the English vessels at Newfoundland being the largest, exercised a *protective* office over the fleets of the other nations, and exacted a tribute therefor. This is a beautiful picture of the fraternal harmony of the nations of Europe in America, such as it would have been better for America could we have seen more of in later times,—but against *whom* did the English ships protect their confiding charge? Not against any other commercial nation, for excepting those whose ships were fishing peacefully together here, not another nation had a vessel in those waters. Not against each other, for were there not already quiet, what check would the 15 English vessels, large as they were, afford against either the 150 French, the 100 Spanish, or even the 50 Portuguese? Not against outlaws to all nations, for how should their few vessels be better security to the other large fleets against marauders, than they had in themselves?

The Spanish and Portuguese enterprise in the fisheries was at this period at its height. Thereafter their vessels at Newfoundland rapidly decreased, and they soon abandoned the pursuit altogether, in the stronger excitement attending the colonization of South America, leaving the French and English to share the fishery between them, and to contend for the mastery in those seas and adjoining regions.

In 1602, Bartholomew Gosnold, accomplishing the first *direct* voyage from Europe to the coast of North America, (all other navigators having reached it by way of the West Indies,) commenced the *New England* fishery, giving its present name to Cape Cod, on account of the multitude of codfish which he took near it. Gosnold described this region as affording much better fishing than Newfoundland, as did also Capt. John Smith, who came over in 1614, and returned with a cargo of 47,000 fish, taken on the New England coast, which made a profit for the adventurers of about \$7,000. This was a good attestation of his account, and accordingly we find, by 1622, 35 English ships profitably fishing on the N. E. coast.

Mr. Sabine endeavors to show that the fisheries led to the settlement of New England, and that a leading motive with even the free temple seeking Puritans, was in visions of weir and seine. That the general enterprise of the sea entered much more deeply into the causes of American colonization, throughout, than it has been the fashion of historians to narrate, is very certain. That they deemed it an advantage in the country, before emigrating to it, that its seas were plentifully provided with fish, which would lessen the contingencies of an infant agriculture, and prove a permanent source of profit in advanced stages of colonization, needs no attempt at proof. But it must be remembered that the Plymouth colony did *not intend* to settle in the particular region whose ocean riches were supposed to be the most abun-

dant. And although when landed destitute on the sandy coast of Cape Cod Bay, they eagerly seized on the "blessings of the bay" as the only alternative with starvation, we must acquit them of the charge of any peculiar sensitiveness to the temptation of either the "dry" or "pickled" kinds, or of any ambition to outdo the world in the quality of their "brands." No men who ever founded a state were so thoroughly imbued with a single elevated idea, or set up a material kingdom embracing so much of the empire of masculine spirit as did the Mayflower colony. Trade and fishery had more influence in effecting the settlement of Massachusetts Bay, and in regard to New Hampshire, it is probable that fishing establishments, with saw-mills and trading agencies, were the only ideas that entered the heads of Gorges and Mason.

In 1613, Capt. Samuel Argal, with a squadron of thirteen vessels, from Virginia, broke up a French settlement at Mount Desert Island, on the coast of Maine, and another at Port Royal, and on the return from the same expedition, compelled the Dutch in New York to acknowledge English supremacy. All this was effected by a flotilla of fishing vessels, which indicates the very early existence of a respectable fishing interest in Virginia.

In 1621 commenced the dispute occasioned by the attempt of the English company which had obtained the grant of New England, to monopolize all the trade and fisheries of its waters. The Commons House, which had now become a bold advocate of popular rights, nobly sustained the cause of *free fishing*, and finally frustrated the company's endeavors, backed as they were by the regal support. This dispute, continued in the next reign, was one among the causes that finally brought Charles to the block, and made England temporarily a republic.

In 1639, Massachusetts passed her first act for the encouragement of the fisheries, exempting all vessels employed in taking or carrying fish, from all duties and taxes for seven years, and all fishermen from military duty during their season of business.

The English vessels in the Newfoundland fishery, according to Anderson, had risen in 1618 to above two hundred sail, and furnished all Europe with fish. But they did not hold their ground; the occasion of which Childs, a leading commercial writer of the time, attributes to the growing liberty in Europe of flesh-eating on fish-days, and also to the increase of the boat fishery at Newfoundland. He should have mentioned also the increase of the French fisheries. Child advised the displanting of Newfoundland, as, besides this injury to English fishing, the settlers derived all their necessities from New England and Ireland, England herself selling them nothing. As royal proclamations requiring the strict observance of Lent, and the remittance of the duty on salt and other articles used in fishery, had failed of the desired result, this sagacious scheme, worthy of a Stuart, was adopted, and an English knight was sent over on the benevolent mission of driving out the miserable settlers at Newfoundland, and of preventing any more from coming there. The interests of England required that her possessions should be wilderness, and over nothing else was the monarch who could sanction such a project fit to reign. The wretched idea was, after several years of, we believe, only partially successful effort, abandoned. Sabine supposes this measure *had* the effect, possibly, to increase the number of English ships in the fishery, since four years afterward, (1674) there were two hundred and seventy employed, but it is far more likely this was the result of the Navigation Act, and of the various laws passed in support of it, which

had the effect of taking the commercial concerns of the English out of the hands of foreign powers.

It was about this time the New England fishermen began to visit regularly the seas adjoining Newfoundland, and continued to do so, excepting the interruption of the frequent wars, in which their sufferings were heavy, with steady increase of shipping. The extension of their efforts in this direction, tended again to the serious reduction of the English fishery, but the depopulation of New England was a matter that even Sir Josiah Child appears not to have suggested, nor even Charles I. dreamed of undertaking.

In 1699 an act was passed, making the Newfoundland fishery free to all subjects, and providing that the captain of the first fishing schooner that arrived at Newfoundland, in every year, should be admiral for the season, the second vice, and the third rear-admiral, the three jointly to administer a sort of discretionary regulation, the only government granted to the people of the island.

The war of Queen Anne broke out in 1702, and the French, by indefatigable efforts, and a free use of money, it is said, succeeded in effecting an arrangement for continued *peace in regard to the fisheries*. After the war, although the French had lost most of their ground, their fisheries were pushed forward with extraordinary success, and the English were obliged to yield many of the European markets. In 1744, they had employed at Newfoundland, &c., five hundred and sixty-four vessels, the seamen in the business were 27,500, and the catch 1,441,500 quintals. This success was effected chiefly by the vigorous colonization of the island of Cape Breton, affording a remarkable contrast with the policy of the English in regard to their colony at Newfoundland.

In 1745, Louisburg, the capital of the French fisheries, was taken, through the energy of the New Englanders, who had long been anxious to expel the French from America, as being the only rivals whom they feared. This conquest was regarded in England as the most important of the whole war, and the commendations bestowed upon the colonies were very liberal. In this single year, through the loss of this place, the French fishing fleet fell to below one hundred vessels. At the peace of Aix-la-Chapelle, in 1748, however, all conquests were restored, and it was with extreme dissatisfaction the New Englanders saw the French reinstated at Louisburg, and all that they had accomplished with such vast effort and expense thrown away. As a rival to Louisburg, however, the city of Halifax was founded in the same year; on the pet design of building up here a great capital of their own fisheries, the English government yearly expended large sums, which, it is said, were absolutely necessary to keep the improvident population sent out from starvation. Notwithstanding all the anxious cares of its tender nurse, the board of trade and plantations, the bantling was scarcely able to draw its breath, affording a marked contrast with the vigorous health and active growth of the Cape Breton community.

In 1756 war again broke out, one of the alleged causes of which was the aggressions of the French in Nova Scotia. In 1759, Louisburg was again made the grand object of attack, and was obliged to surrender once more to the irresistible force of twenty ships of the line, eighteen frigates, numerous smaller vessels, and an army of 14,000 men. It was declared by English statesmen, that sooner than it should be again restored, they would cede to the French their own town of Portsmouth, the grand defence of the English channel. By the treaty of 1763 Cape Breton was confirmed to the English,

and the French retained only the small islands of Miguelon and St. Peters, with a limited privilege on the coast of Newfoundland. This was *all* that now remained to them of their vast and promising North American empire, which had extended from the outlet of the St. Lawrence to the mouth of the Mississippi. They managed, however, still to keep up a respectable fishery, and one of the troubles of the English afterward, was the profit they made and bestowed through an illicit trade at these islands with the New Englanders.

The New England people had also long carried on and thriven by an illegal trade with the French, Dutch, and Spanish West Indies. Besides their fish, they exported to these islands horses, live cattle, beef, pork, poultry, lumber, &c., taking sugar, molasses, and rum in return, and sometimes European manufactures. An act designed to put an end to this traffic was adopted in 1733, but had never been enforced; another was adopted in 1764, at the same time with the act imposing duties on various American imports and exports, and was so vigorously enforced as to cut off this trade almost entirely, and through that seriously to affect the fishery and other American interests. The wisdom of this act, as regarded its effect upon the British interests, may be inferred from the fact, that nearly the whole proceeds of the interdicted trade ultimately were expended in England for British manufactures to be used in the colonies.

The series of insane measures to which this act belonged, having resulted in the assumption of a hostile attitude by America, one of the first acts of parliament in the year 1775, was that of depriving the New England colonies of the privileges of trade and fishery, intending thereby to starve them into submission. Mr. Sabine gives a very interesting synopsis of the debates on this very humane proposition. The right of the Americans to fish upon the banks of Newfoundland, and the impolicy of the restraint, were upheld in the Commons by Mr. Dunning, Gov. Johnstone, Sir George Saville, Edmund Burke, Mr. Fox, Mr. T. Townsend, Lord John Cavendish, Mr. Hadley, &c.; on the other side were Lord North, the Attorney General, Thurlow, Sir W. Meredith, Lord Beauchamp, Sir Richard Sutton, Lord Howe, Mr. Jenkinson, Mr. Rice, and others. In the Lords, the cause of the Americans was supported by the Marquis of Rockingham, the Duke of Manchester, Lord Camden, and the Earls of Shelburne and Abington, and the government proposition was advocated by the Earls Carlisle, Denbigh, and Suffolk, Viscount Dudley, Lord Sandwich, and the Duke of Grafton. The bill crushing the foreign commerce and fishery of America, passed in the Commons by 188 to 58, and in the Peers, by 73 to 21. Thus was the contumacy of New England to be punished, and the non-importation measure recommended by the Congress, retaliated.

At the same time, the occasion was seized for securing to England the advantages withdrawn from America, by the offer of bounties to their fishermen. To each of the first twenty-five British vessels landing in each year, by the 15th July, a cargo of 10,000 fish at Newfoundland, and proceeding to the banks for a second fare, was to be paid £40; to the next hundred vessels £20 each, and £10 each the next hundred. Like encouragements were held out also to the whale fishery.

Had the British Government allowed the fishermen to pursue their avocation unrestricted—a liberty which was stated by Gov. Johnstone to have been granted to the French fishermen in a former war—England would no doubt have averted from her Commerce a very considerable part of the de-

struction with which it was visited in this war. Denied the pursuit which they would have chosen still to adhere to, so long as it could be safely continued, in preference to the uncertainties of privateering, the New England fishermen had no other resource left but to seek a subsistence by preying upon the trade of those who had robbed them of an occupation. Of the 200,000 tons of British shipping sacrificed during the war, it may be assumed that at least one-half was the penalty of the act of 1775, banishing the Americans from their old fishing grounds, of which ministers had so flippantly talked as an act that, beside starving the Americans, was, by increasing the British fisheries, to augment the gains of the British trade.

One great object with the Congresses of the Revolution was the capture of the fishing region from the English, to effect which, and to secure the alliance of the French, they were willing to grant to them equal rights in the waters, and the possession of one-half the island of Newfoundland, should it be conquered. This offer was pressed upon the French cabinet in 1776, and kept before them until the final treaty in 1778.

The continuation of the rights and privileges of the United States in the fisheries at the peace, was effected principally, as has been often repeated, by the firmness of John Adams. Congress, in 1779, had adopted a modified motion of Mr. Gerry, making the right to the free use of the ancient grounds an ultimatum, not to a treaty of peace, but to a treaty of Commerce, to follow or accompany that of peace. The New England States were desirous that the acknowledgment of their right should be incorporated in the treaty of peace, and thus be placed on the same basis as their independence—and they were ready to continue the war until that concession should be made. But other States were willing to sacrifice the fisheries entirely for the sake of peace, and the bitter discussions on this point were concluded by compromising on the foregoing agreement. But in 1781, Congress was so anxious for peace that even this ground was deliberately given up, and the fisheries were left entirely at the discretion of the commissioners—the act of revocation implying, of course, that the entire claim might be abandoned, if they chose to yield it. So disastrous an issue was happily averted, and our rights in those seas, for the acquisition of which by England, American blood and American treasure had been so freely lavished, were placed upon the same indestructible basis with American nationality. In this result, the American commissioners overcame the combined obstacles of the apathy of Congress, the unwillingness of the British commissioners, the untiring influence of numerous loyalists who had fled to England, and the secret opposition of their ally. Mr. Sabine, indeed, thinks the American commissioners were "mistaken" in their idea that the French Government was willing to sacrifice their claims in the proposed mutual treaty, but we do not see on what reasonable grounds. He tells us himself, before, that "the fact is now well ascertained that they [the French] were averse to the design against Canada, and that from the first it was their settled policy to leave that colony and Nova Scotia dependencies of England." It was because France, acting upon the principle that the more England conceded to America the less would she be willing to yield to France, manifested a design to purchase sundry privileges for herself at the cost of her ally, that the American commissioners took the bold step of negotiating a separate peace, in direct violation of the most explicit instructions, and at the hazard of incurring French hostility. We believe no political writer in the United States has ever thought fit to condemn that step: yet if the French Government were so purely actuated

by good faith and unselfishness as Mr. Sabine assumes in imputing this *mistake* to the commissioners, their act most flagrantly compromised the national honor, and should have met the reprobation of every honest man.

During the war, Newfoundland and Nova Scotia, the former of which especially had before depended considerably on supplies from the colonies, were in a very distressed state, and England, though part of the time afflicted with a scarcity of grain herself, was obliged to allow yearly exports of food to these places. In 1784, Newfoundland was in a starving condition, and Parliament granted to them the privilege of importing bread, flour, and live stock from the United States in British vessels. During the latter part of the war, Canada also had been unable to feed herself, and the British West Indies, deprived of their usual American supplies, had suffered deeply.

Immediately upon the peace, many of the British merchants made vigorous efforts for the establishment of the freest possible commercial relations with the United States; a great part were even desirous that the barriers of the Navigation Act should be so far broken down as to admit the United States vessels as freely into the British West Indies as if still British subjects. The Government seemed desirous to renew the intercourse, but was determined to treat the Americans entirely as foreigners, to which they could not in reason complain, although they *were* very much incensed when they found they were not to have any advantages over other foreigners in the West Indies. An order in council of 1783, prohibited their fish from being carried thither, in which it was supposed they might have been indulged but for tory influence. Mr. Sabine credits that class for this disfavor; but we think no man who has acquainted himself with the general commercial policy of England at that time, by following the series of enactments relating to trade from the time of the navigation laws, could come down to the events of 1783 with the slightest anticipation that the government would act in this particular otherwise than as it did. It was her unvarying policy to allow no foreign nation to supply either herself or one of her colonies with what either she herself or another colony could provide, nor even to permit one colony to export to another, or, indeed, make for its own use any articles which she could supply to them both. For some years after the war, the English Government, to the obvious detriment of their West India colonies, endeavored to limit their dependence for articles of food and lumber to Canada and Nova Scotia, until the inability of those unprosperous provinces to meet their wants was fully exhibited.

Mr. Sabine takes the position—which is, we believe, an original one with him, but is very susceptible of proof—that all the troubles of the United States with Great Britain in regard to the fisheries, since the Revolution, have been due to the course pursued by our Government and people toward the tories. It is, we think, beyond question at the present time, that the cheapest as well as the wisest policy which the United States could have adopted regarding those unfortunate persons, would have been to comply with the full demands of England, and *more* than comply with it. She asked for them remuneration for the confiscations of their property made during the war. Had the States granted that demand, and in addition invited the loyalists to return to their country, the effect would have been the return of nearly the whole body, bringing, beside numbers, a large augmentation of productive energy. Their *descendants* would have been *here*, too, instead of populating the regions of Nova Scotia and upper Canada, which, but for the impulse derived from *their* superior activity, would probatly have

remained to this day, as Mr. Sabine reasonably believes, in the state in which the Revolution found them—one, a colony almost too feeble to draw its breath, the other a wilderness. All the provincial consequence of that entire region might, in very truth, have not exceeded the present importance of the island of Newfoundland. It is indeed not unlikely that the Americans might have *purchased* and annexed a part or all of what is now the great domain of British America, as it is certain that at the time of the loyal advent the English Government had grown heartily sick of its costly endeavors to raise respectable colonies in those regions, and that some of the English statesmen actually proposed to give the whole to the Americans at the peace, as utterly worthless of retention. Instead of seeking our true interests in granting that reconciliation to our alienated brethren which they so ardently desired, we forced them to continue enemies, drove them ourselves into the establishment of rival fisheries, and perpetuated that hatred which has led them on every available occasion since to harass our fishermen, to seek the limitation of our rights, and even our total expulsion from the fisheries. They rejoiced when the war of 1812 broke out, and immediately commenced, as their fathers had done in 1783, the effort to persuade the English Government that it should make no peace but what should exclude the Americans forever and entirely from those waters. The siege at the ear of the Home Government was *their* part of the operations carried on through that whole war. The mother was not in the least unwilling to be persuaded by her eloquent daughters, but succumbed to the firmness of the second Adams and his associates, as she had to the first one.

So much has been written of late regarding the affairs connected with our fishery, since the war of 1812, that we need not here refer to them. We have elsewhere considered the subject of our treaties regarding the fisheries, especially in relation to the convention of 1818, which we hold to have resulted in the enormous error of changing an indestructible title for one liable at any moment to absolute nullification. The treaty of 1783 was in its nature *irrevocable*; that of 1818 may be at any time set aside, and, according to the idea of the English Government, which holds that it supersedes that portion of both the treaties of 1783 and 1812 which relates to the fisheries, our rights have no other guaranty than this treaty of 1818 affords. With the abrogation of the convention, the right *expires*. The exposition of this point will be found in Chapter II. of the former series on the fisheries, vol. xxvi. of the *Merchants' Magazine*. To the other chapters of the series we refer the reader for statistics on various points, tonnage, exports and imports, inspection, duties, bounty, &c.

The *commercial* aspect of the fisheries affords a very interesting view of that branch of our national industry, and is another topic which might add one of its best chapters to a work like the one in question. In the course of some historical essays upon the Commerce of the United States, which we intend presently to undertake in the *Merchants' Magazine*, this view of the subject will be presented. The indebtedness of our home and foreign Commerce to the fisheries will be exhibited, and the relations which they have maintained at different times explained.

Art. II.—RUSSIA: THE PAST AND PRESENT OF ITS COMMERCE.

WE think we may safely assert that Russia has never, in any period of her history, attracted such almost universal attention as at the present time. The embassy she has lately dispatched to Constantinople, so ostentatious in its character, so intimidating in its appearances, so determined in its purposes, seems to have awakened those powers who have guarantied the integrity of Turkey to more than usual activity, at least so far as regards the means of peacefully restraining the aggrandizing spirit of Russia. But whatever may be the result of that mission now, one thing is certain, that Russia, either by diplomacy with the Ottoman or intrigue with the Montenegrins, is soon to have a part in that sea on which her eyes have longingly rested, and which her heart has coveted, since her Great Peter declared that Muscovia could not become great till she was the possessor of good ports for her naval and mercantile marine. What would be the effect of such an acquisition upon her now growing Commerce, we do not propose here to discuss, but to give some facts respecting her past and present trade, on which others can base opinions as correct, as the facts we give are undeniable. Perhaps it will be expected that we shall commence our history of Russia's Commerce with the accession of her Great Peter, but we choose to look first at her trade ere civilization had shone upon her, and when, in the language of Milton's *Brief History of Muscovia*,* “they would suffer no learning among them, and were great liars, flatterers, and dissemblers.”

The year in the calender when Muscovia saw the first ship that laid the foundation of its present trade, can be fixed with unerring certainty. Muller, in his *Sammlung Russicher Geschichte*, (Band 5, p. 158,) tells us that a lucky accident drove an English ship, in 1553, into the now flourishing harbor of Archangel. The strangers were treated with kindness, and they returned to England with the news of their discovery of a new nation, and the profitable character of their trade. England at once secured a monopoly of the trade, the profits of which may be inferred when we state that it was treble the cost of the goods.† For thirty years she enjoyed the sole benefit of this trade, when the Dutch (who, as early as 1498, had penetrated overland to Moscow) were admitted to equal privileges and freedom.† From this time its Commerce became open to all nations, and in 1665 three English and forty Dutch ships transported sufficient merchandise for the kingdom of Muscovia. In 1700, one hundred ships, representing English, Dutch, Hamburg, and French interests, traded at the then only port of Russia, Archangel.† It had also a small trade with China, consisting of a caravan dispatched from Tobolsk once in three or four years, for the purpose of exchanging the furs of Siberia for the teas, porcelain ware, and toys of China. A little prior to this time the Great Peter had ascended the throne, and the thick gloom and darkness that for five centuries had enveloped Russia, began to give way before the penetrating ray of civilization, Commerce, manufactures, and the arts and sciences. The romantic story of his travels, his visits to the dockyards and mechanic-shops of England and Holland, are known to every child, so suffice it for us to say, that he returned to Russia not only with the knowledge he himself had acquired, but also with the best

* Milton's History, a political and miscellaneous work. London. 1767.

† Muller's *Sammlung Russicher Geschichte*. Band 5, 158-9.

‡ Anderson's *Commerce*.

artificers of England and Holland. Suddenly the character of the whole people became changed, and they were animated by his spirit, or moved by his cudgel.

Peter had noticed the great commercial emporiums of the Continent, and judged that Russia, to become commercially great, must have her great mart also, and from the morass at the confluence of the Neva with the Gulf of Finland sprang up, at his touch, that city whose commerce exceeds all the rest of the Russian Empire. Perhaps we could not better illustrate the gradual yet steady increase of Russia's Commerce than by a few statistics in regard to the growth of this then infant city:—

	1730.	1750.	1761.	1777.	1785.	1825.
Arrivals,*	100	272	360	780	870	1,288
	†1749.	*1785.	1800.	1815.	1837.	
Imports,	2,942,242	12,172,346	20,070,935	65,961,238	169,148,853	
Exports,	3,184,322	12,941,513	32,255,354	107,989,493	116,954,950	

While Peter thus gave a new impetus to Commerce by founding a maritime city, he also farther extended it by the conquest of Livonia from the King of Sweden, gaining thereby three as fine ports as the world possesses. There arrived at Riga, one of the ports thus obtained, 953 ships in 1782, and 1252 in 1783. At Revel, another of them, there arrived in 1781, 93 ships, in 1785, 157.‡ According to calculations made by Anderson, Busching, and Herman, the arrivals in the empire at different times may be correctly stated as follows:—

1700.	1736.	1761.	1785.	§1832.	||1849.
100	200	600	2,200	5,720	6,140

While Peter was thus engaged in extending her maritime trade, he was not unmindful of what might be the value of an overland trade to China. As early as 1653 an ambassador was dispatched to China by the then Russian Government, for the purpose of opening a trade between the two countries, and so well did he succeed that in 1670 a large caravan was frequently dispatched from Tobolsk to China. This trade was destroyed by the war between Russia and China in 1684, but upon the renewal of peace in 1689 it was stipulated, (Art. 5,) that persons possessing passports from their respective governments might engage in traffic. This treaty failed to produce results satisfactory to Russia, and in 1692 another minister was sent to Pekin, which resulted in the trade becoming monopolized by the crown in the year 1698. This treaty gave Russia the right to send a caravan to Pekin once in three years. From 100 to 1,000 persons usually accompanied these overland trading companies, and so numerous became the Russians at Pekin, that the Emperor allowed them to build a church for the purpose of worship. But the riotous and disorderly conduct of these traders and their servants soon after provoked China to threaten the entire abrogation of their privileges: and again, for the purpose of preserving this trade, did Russia send a minister to Pekin, and in 1726 she concluded a treaty which is the basis of her present commercial regulations with China. In it was stipulated that a trading post should be established on the banks of the Kiakta, (from which

* Busching, vol. I., pp. 110-11; McCulloch's Commercial Dictionary, vol. II., p. 291.

† Universal History, vol. XXXV., p. 158.

‡ Busching, vol. I., p. 917.

§ McCulloch.

|| Raymant, from official sources.

brook the town takes its name,) all exchange to be by barter, the crown to have the monopoly, and the right to send to Pekin a caravan once in three years; and in the following years this stipulation was improved, viz: 1728, 1732, 1737, 1741, 1746, and 1755. In 1762 the crown relinquished this monopoly, and all trade went into the hands of private merchants. This place, when visited by Pallas (Pallas Reise, Band 3d, 110) in 1772, contained but 125 houses, a fort, warehouse, and church. Of the amount of its early trade we have no knowledge, save that Pallas tells us that in 1770 its revenue was 500,000 roubles.* The earliest data of its Commerce that we have found, are those given by Coxe for 1777. The early traffic was, as now, an exchange of Russia's furs, cloths, provision, tinsel goods, and cattle, for China's teas, crockery, toys, and raw silk.

Below, we give a view of its earlier and later Commerce:—

Years.	Import.—Roubles.	Export.—Roubles.	Total.—Roubles.	
1777	1,487,522	1,388,621	2,872,143	including smuggling,
1795	2,546,825	2,543,785	5,190,610	[4,000,000 roubles.
1802	4,491,307	2,016,320	6,507,627	
1831	6,755,536	4,655,536	11,411,072	
1845	.....	.....	18,000,000	
1849	6,600,000	6,400,000	13,000,000, or £888,633 imports,	
				[and £865,848 exports.

While Peter thus laid the foundations of the maritime trade of Russia, and opened new avenues for her Commerce, he was not unmindful of the necessity of manufactures to extend and increase. In the early part of his reign he introduced the manufacture of cloth, also other simple mechanical arts, and though their progress was slow at first, for the last half century it has been exceedingly rapid. Take the ten years from 1822 to 1832, and they will give us some idea of their rapid development. From an able paper laid before the French Statistical Society, (1837, French Statis. Soc. des Travaux, 294,) it appears that in 1822 she had but 170,939 persons engaged in manufacturing pursuits, but in 1832, 363,893, producing goods to the value of 509,574,497 roubles. Her consumption of cotton has increased as follows:—

1832.**	1842.††	1848.
9,221,804 lbs.	18,477,144 lbs.	44,331,660 lbs.

Her export of wool shows this decrease, commencing with 1842:—

1842.††	1847.	1849.
20,378,772 lbs.	15,657,480 lbs.	8,593,056 lbs.

With manufactures came mining, which was introduced in 1704, and we will soon give a table of its productions, including both public and private mines. Peter turned his attention to artificial navigation as a help almost indispensable for the sure, steady, and certain growth of Russia's trade. Seventy years before enlightened England had become convinced of its utility,†† he began a system of artificial navigation to connect the Asof with the

* Muller's Sammlung Russischer Geschichte, vol. iii., pp. 460, 75, 572, 96, vol. viii., pp. 504-20, vol. ii., (containing the treaty of 1689,) p. 432; Pallas' Reise, vol. iii., p. 109, 50; Busching, vol. i., p. 1,117.

† Coxe, Russian Discoveries, p. 476.

†† Edinburgh Encyclopedia, article Russia.

‡ Rees' Encyclopedia.

§ McCulloch's Commercial Dictionary, vol. i., p. 678.

¶ Hunt's Merchants' Magazine, vol. xxvi., p. 85, also the volume for 1846.

Cochrane, in his Pedes. Journal, estimates its trade in 1820 at 30,000,000, or about £1,300,000. The above table is from official sources, save the amount for 1845.

** French Statis. Soc. des Travaux, (1838,) p. 433.

†† Hunt's Merchants' Magazine, vol. xxvi., p. 85.

†‡ Oddy's Sketch of the Political, Commercial, and Local Interests of Great Britain.

Caspian, Archangel with St. Petersburg, and in fact to connect all parts of the empire, by means of canal navigation, with its great commercial emporium; and as the fruits of this wisdom, we to-day see merchandise transported 1,400 miles without once unloading, and amounting, ten years ago, to 509,000,000 roubles.*

The influence of these improvements, together with the right to pass and repass the Dardanelles, which she obtained by the treaty of Korisygdy, July, 1774, (and which led to the founding of Odessa in 1792, at which place there arrived, in 1803, 504 ships, and in 1809 rose to 900,†) has been powerful and inspiring; and from one ship (and the first Russian one, too, that ever set face to the open sea) that sailed to Cadiz in 1725, we now have 750‡ trading to all parts of the world.

The foundations of her early Commerce, like those of every other nation composed of nomadic tribes, were the cattle feeding in her meadows, the sheep playing on her hills, the bees humming on her flowers, and the fish sporting in her seas, while her imports were the warm cloths of England and Germany, the luxuries of Holland, and the sparkling wines of Champagne and Bordeaux. In 1758, she had extended her articles of export, and among them were many articles of domestic manufacture. The following table, from Busching, (Vol. 1st, 704,) will well show the character of her Commerce and its amount at that time:—

	1758.		1758.
	Roubles.		Roubles.
Iron	1,443,000	Furs	490,000
Spawn-cakes	577,000	Linseed and tow cloth	2,020,000
Wheat	177,000	Russia leather	1,115,000
Linseed	433,000	Soap	750,000
Flax	1,683,000	Hemp oil	255,000
Hemp	2,795,000		

In 1802 her principal articles of export were thirty, of import, thirty-four, and at the present time they partake both in number and quality of the character of an advancing, manufacturing, refined, and highly cultivated nation. Of the nations with which she has commercial dealings, England, in point of age, (China excepted,) stands first.

From Playfair's tables, as given by Morse, (Vol. 2d, 128, 179, 6 ed.) McCulloch Com. Dic., Vol. 2d., 21, and Uni. Geog., Art. Russia, &c., we give the amount of trade at various periods between England and Russia. We have no official knowledge of the amount of imports into England since 1837, but as there has been an increase of the timber and grain trade since that period, we have estimated the present imports at about £180,000 more than in 1837, at which time but 221 Russian vessels entered Great Britain, instead of 354 as in 1852.§ England imports from Russia corn, tallow, hemp, flax, iron, timber, wax, bristles, hides, flax, and linseed. She exports woollen fabrics, salt, coal, hardware, colonial produce, and cotton twist, which last article, in 1837, constituted three-fourths of the value of all her exports to Russia. Its consumption is fast decreasing in Russia, as the following statement of the Eastern Counties Herald (Hunt's *Merch. Mag.* vol. 26, 85) will show: amount imported by Russia in 1842, 21,760,380 lbs., in 1849, 13,901,142 lbs., showing a decrease of more than one-third. Below we

* McCulloch.

† An Account of Odessa, translated from the French.

‡ Hunt.

§ Account of Trade and Navigation. House of Commons, Feb. 21, 1833, p. 15.

give the exports and imports till the present time—all statements being official except the import in 1852.

Year.	Import.	Exports.	Year.	Import.	Exports.
1700.....	£109,000	£135,000	1802.....	£2,182,430	£1,281,555
1720.....	195,000	50,000	1822.....	2,258,975	2,329,725
1740.....	335,000	75,000	1837.....	4,833,488*	1,686,391
1760.....	570,000	98,000	1851.....	5,000,000	1,289,704
1780.....	1,185,000	290,000			

In 1839, 374 ships of England were engaged in bringing timber from Russia, and in 1845, 483.†

Of her Commerce with France, we have been unable to find any very early data. The Merchants' Map of Commerce (1700) merely speaks of France as sending her wines to the Eastland countries, and receiving in return their timber, wool, and naval stores. In 1776 we find her Commerce with Norway, Sweden, and Denmark to be 1,500,000 livres. But by the Statistic de la France (1804) we find her Commerce in 1792 to be as below, and this is the earliest account we have as yet found, (see Atlas, table 5th.) The other sums are also official.

Year.	Import.—Francs.	Export.—Francs.
1792.....	1,342,000	3,221,000
1834.....	10,000,000	13,000,000
1850§.....	18,000,000	20,000,000

Of the commercial dealing of Russia with the United States we will soon speak, and merely remark, in closing this sketch of her Commerce, that she has a large trade with Asia, (£2,133,048 imports, £1,368,703 exports,†) and the countries that border on her own empire, but that lack of reliable statistics, except with regard to Turkey and the Caspian trade, induces us to make no mention in detail of the amount of their trade. We believe we could not better show her progress in all departments than by the statistics below:—||

Years.	Area in		Years.	Area in	
	German sq. miles.	Population.		German sq. miles.	Population.
1462.....	18,494	6,000,000	1763.....	319,538	25,000,000
1505.....	37,137	10,000,000	1796.....	331,810	33,000,000
1584.....	125,465	12,000,000	1825.....	367,494	48,000,000
1645.....	254,361	.....	1837.....	370,571	50,000,000
1689.....	263,900	15,000,000	1852.....	.....	70,000,000
1725.....	273,815	20,000,000			
	Revenue.			Revenue.	
	Roubles.			Roubles.	
1700.....	5,000,000		1790.....	45,000,000	
1725.....	8,789,750		1837.....	379,000,000	
1734.....	10,000,000		1850.....	500,000,000	
1763.....	24,000,000				

PRECIOUS METALS.

Years.	Gold.		Silver.		Gold.	Silver.
	Poods.	Poods.	Poods.	Poods.		
1764-1801.....	1,726	61,859	1830.....	.....	355	.....
1811-1822.....	2,910	12,104	1837.....	.....	470	.....
1823.....	243	996	1847.....	.....	1,780	.....
1824.....	207	300	1848.....	.....	1,826	1,192
1825-1828.....	1,037	11,904				

* Commercial Dictionary, vol. ii., p. 94, 108,577,842 roubles, 11d. per rouble.

† *Hunt's Merchants' Magazine.* ‡ *Ibid.*, vol. xxvi. p. 86.

§ McCulloch's Commercial Dictionary, vol. ii., p. 294; *Hunt's Merchants' Mag.*, vol. 26, p. 281.

|| The sources from which these tables were compiled are—France Statist. Soc. des Traveaux, (1837), pp. 473-74; Rees' Encyclopedia, article Russia; Busching, vol. i., p. 738; Merchants' Magazine, vol. xxviii., No. 1; *Ibid.*, vols. xix., xx., Nos. 5 and 6; Jacobs on the Supply of the Precious Metals; McCulloch's Universal Geography, article Russia.

¶ Pood, 36 lbs. Troy; gold £4 per oz., silver 5s. 6d.

Years.	Imports. Roubles.	Exports. Roubles.	Years.	Imports. Roubles.	Exports. Roubles.
1760.....	15,243,000	18,650,000	1822.....	158,016,998	191,380,770
1768.....	25,712,800	28,275,800	1831.....	233,708,730	257,375,871
1775.....	24,938,000	32,196,000	1834.....	234,788,854	225,968,839
1796.....	47,500,000	52,500,000	1845.....	319,357,340	285,366,733
1807.....	51,524,051	63,000,000	1849.....	305,149,840	326,510,220
1815.....	105,712,800	170,088,885			

	Balance in favor of Russia. Roubles.		Balance in favor of Russia. Roubles.
1700.....	2,000	1796.....	5,000,000
1758.....	2,324,556	1802-1807.....	68,926,289
1760.....	8,413,000	1812-1815.....	261,219,496
1768.....	3,268,000	1822-32.....	186,359,683
1775.....	7,258,000	1849	21,380,186

Such is Russia, such are her area, population, Commerce, mineral and golden wealth.* Were we to name that empire whose policy she has imitated in the consolidation of tribes into nations, and the adaptation of a government to their nature and character, we should cite Rome; and were we to speculate as to what empire she hopes to exceed in territorial extent and in military power and glory, we should say that one, the history of whose Decline and Fall has immortalized the name of a Gibbon. Already her frontiers rest upon the borders of Persia, and but 300 miles from its capital; she is but 70 from Dantzie, the seat of Prussia's Commerce; 170 from Berlin; 300 from Constantinople; 80 from Trebizonde; and but 40 days journey from the Indies;† while by means of her railways she can now transport troops from one end of the empire to the other in twice as many days as it once took months, and has already commenced the building of the carriages thus to transport them and their material of war.‡ We do not intend in this paper to discuss the question, as to what effect this last consolidation of her power and centralization of her forces will have on those states and nations in whose capitals have once been heard the tap of the Russian drum, and the response of the Cossack, who shouted, as he passed his Czar, "We will do better next time,"§ but wish, in view of all the facts, to ask and answer this question, What should be the policy of the United States towards this mighty and yet increasing gigantic power! We answer, at once, the adoption of such a policy as shall strengthen the good feelings already existing between the two countries, and the immediate extension of our commercial intercourse with her.

As precedent has often more influence upon men than reason, and interest more weight than argument, we will here state, that as early as 1780 our revolutionary fathers voted to dispatch a minister to Russia, for the purpose of obtaining an acknowledgment of our independence, and forming an alliance with her on the same terms as we had with France. (See Jour. For. Aff. 1786, 81, p. 367, 66.) In the instructions thus given to Dana, they say "that you will endeavor to procure from her Majesty the recognition of our sovereignty and independence, and assure her of our desire to number so wise, so magnanimous a princess among our supporters, and our desire to form a treaty with her on the same terms as with his Christian

* The sources from which the two tables on this page were compiled are—Universal History, vol. XXXV., p. 158; Busching, vol. I., p. 704; Edinburgh Encyclopedia, article Russia; Franc. Statis. Soc. des Traveaux, (1836,) p. 239; McCulloch's Commercial Dictionary, vol. II., p. 294; Merchants' Magazine, vol. XVI., No. 6; Raymond, and others.

† Sir C. Wilson's Sketch of the Moral and Political power of Russia.

‡ Allison.

§ Times, (London,) March 29, 1853.

Majesty. Owing to the Empress's proffered mediation between us and the mother country no minister was dispatched, as peace soon began to dawn upon us, and it was not till 1807 that we sent a minister to reside at St. Petersburg. Our Commerce with her began very early, and below is its aggregate in periods of years, and also the balance against us. Owing to the peculiar manner of making out the reports of our Commerce prior to 1820, we are not able, in reality, to give the gross balance against us, for the value of no article is given unless paying an *ad valorem* duty. Both McCulloch, McGregor, and Pitkin have thus made out their tables, leaving out those goods that paid during this time a specific duty, among which were hemp, cordage, sail duck, iron, and teas, sugars, &c. We give, in a separate table, the amount of hemp, untarred cordage, and sail duck imported during the years from 1801-20.

Years.	Imports.	Exports.	Balance against U. S.
1795-1802*	\$7,812,176	\$223,814	\$7,089,362
1802-1810	12,014,310	5,429,812	6,584,498
1810-1821	8,092,852	12,270,677†	.....
1821-1830	23,027,579	5,136,279	17,891,300
1831-1840	25,083,202	8,840,155	16,243,047
1841-1851	18,633,709	9,277,238	4,356,471

Hemp, from 1800-20, 1,450,536 ewt.; Russia duck, from 1816-20, 92,578 pieces; tarred cordage, do, 3,618,921 lbs.

Our imports from Russia in 1851 were, articles not specified, \$435,681; sail and other duck, \$61,554; sheet iron, \$148,396; bristles, \$168,402; cordage, \$189,004; hemp manufactures, \$79,334; flax manufactures, \$113,394. Our exports, cotton, \$1,297,164; tobacco, \$130,063; and rice, \$21,388, (these only include the principal articles on both sides.)

Total imports, \$1,392,782. In American vessels, \$1,007,981. Total exports, \$1,465,704. In American vessels, \$1,187,116.

These are to us gratifying figures, showing a constant diminution in imports and steady growth in exports. Our export of foreign and domestic produce, at different periods since 1842, is as below:—

	1842.	1845.	1851.	Inc. in 10 yrs.
Foreign produce	\$76,926	\$97,079	\$145,987	\$69,061
Domestic produce.....	309,867	535,808	1,465,704	1,155,837

These figures demonstrate plainly that a new era is opening in our Commerce with Russia, and what is more pleasing than all, the increase is in those bulky articles that give the most employment to our shipping. In the statement below will be seen the increase in two of these articles since 1832.

	Cotton exported. lbs.	Tobacco. value.
1832*.....	838,951	\$87,973
1842.....	2,833,757	237,314
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1st. A great market for our cotton, tobacco, and sugar.

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Such are a few of the advantages that present themselves to our mind as the result of a policy sufficiently liberal to awaken, on the part of Russia, a desire to become more intimately connected with us, socially and commercially. As to what that policy should be, in all its parts, we have not room here to explain, but specify this one alteration in our tariff, viz: the immediate reduction of the duty on coarse wools, of which Russia exports (but will soon cease to) 8,593,056 lbs., being a diminution on that of 1842 of 12,000,000 lbs.§ That this, without detriment to any one, would be of great advantage to our manufacturers, in enabling them to lessen the cost of their goods, and thus making them more able to compete with the woolens of England and Germany, we believe no one will question; and, in fact, we see by the Paris correspondent of the *Times*,|| (London,) that some

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Art. III.—THE DISCOVERIES OF GOLD IN CALIFORNIA AND AUSTRALIA.

THE effects which are being produced throughout the world by the large introduction of gold—upon the *value* and *stability* of property—is one of very important import, and in which the whole civilized world has a deep interest. Gold and silver were discovered in the earliest ages of the world. That the ancients were acquainted with mining, there cannot be a doubt. Job was not only acquainted with gold and silver, but was actually acquainted with the manner of obtaining it; “Surely,” says he, “there is a vein for silver, and a place for the gold where they fine it.” He farther adds, that the earth hath dust of gold. Even at an earlier period, Abraham, who lived 2,000 years before the Christian era, purchased a burying place, for which he paid 400 shekels of *silver*, which he delivered, not in coin, but by weight, according to the custom of merchants. This early use of gold by weight, according to the custom of merchants, was afterwards superseded by establishing mints to coin gold and silver into pieces more suitable to facilitate trade and Commerce.

Gold and silver, like all other minerals, have an intrinsic value,—the value of which is in relative proportion to the cost of production. The principle which I state, will hold good for a period of over 4,000 years in the history of the world. It represents wealth in itself, being the production of the sweat and toil of man. Silver and gold are not, as many writers on political economy say, merely the representative of property; gold and silver is real property—is real wealth, and is no more the representative of 100 bushels of wheat, than 100 dollars worth of wheat can be the representative of 100 dollars worth of coal,—for the fact, that each is equivalent to the other; each is real wealth, and not a mere symbol or representative. Nor does gold or silver differ essentially from other items of wealth. The conversion of a bar of gold or silver into coin, does not change its nature in a greater degree than the smelting of iron or copper ore into bars and pigs,—of course the labor of refining increases, or adds to the value in proportion to the cost of labor. Therefore, the theory of many political writers, that the authority of government gives value to gold and silver, in any great degree, is absurd. The whole history of the world gives a lie to the dogma; wise men, legislators, and statesmen, may alter the weights of coin, or lessen their purity, but they cannot make a coin weighing an ounce, containing half an ounce of silver, worth as much as an ounce of pure silver.

Again, the utility of gold and silver in the arts is so great, that they would bear the same relative value, according to the cost of production, even if they were not the material of money,—they would exchange for great quantities of corn, or any other commodities. This is, in fact, the history even before gold and silver were legalized as a currency.

One other position, which has been maintained more or less for centuries is this, *that gold and silver have an arbitrary fixed value*; this I contend is a great mistake; how so many intelligent and eminent writers on political economy and the sciences can have continued this great impractical error down to the present time, in the face of stubborn facts, which have been developed by the operation of the currency for nearly two hundred years, is most astonishing. To say, as they do, that the sovereign or eagle is a fixed, arbitrary measure of value, and measures, in the same ratio as to quantity and value, *at all times*, as a yard stick or a bushel measure, cannot

be proved, but only asserted, for the whole history of currency contradicts it. Men choose gold and silver for the material for money, for reasons similar to those which induce them to use cotton, wool, flax, and silk for material for clothing; and stone, brick, and mortar for material for building.

The ancients early found the precious metals of peculiar specific qualities, which fitted them to be standards and measures of value, and adapted, when in shape of coin, to the purposes of a circulating medium; to this use they are admirably adapted. An eminent writer upon political economy gives the following reasons for the admirable adaptedness of gold and silver for a currency.

1st. Because they are divisible into extremely minute portions, and capable of re-union without any sensible loss of weight or value; so that the quantity may be easily apportioned to the value of the articles purchased.

2d. They have the sameness of quality all over the world. The difference between iron from different parts of our own country and of Europe, is well known to all dealers in that article. The copper of Siberia is superior to that of Germany; while that of Sweden is better than that of Siberia; and that of Sweden is surpassed by that of Japan. But one grain of pure gold is the same, and is exactly similar to another, whether it comes from the mines of Europe or America, or from the sands of Africa; time, weather, and damp, have no power to alter the quality. The relative weight of any specific portion, therefore, determines its relative quantity and value to every other portion. Two grains of gold being worth exactly twice as much as one.

3d. Gold and silver, especially with the mixture of alloy which they admit of, are hard enough to resist very considerable friction, and are therefore fitted for very rapid circulation.

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Such are the elements of gold and silver, and for such inherent qualities they have been considered *precious*, and for these only they are the best known in the world for use as money.

In the earliest ages of the world, in a more savage state, when the precious metals were comparatively unknown, wampum, corn, cattle, iron, leather, tobacco, cocoa, and copper, in point of fact, have been *used as money* in different ages and in different countries,—but they have long ceased to be used by commercial nations advanced in civilization. In the early periods of the world gold and silver passed from hand to hand by weight, and according to its market value. I have no doubt it would always have been better for the world had the original mode been continued to this day,—we should then have heard no complaints of the rise of gold and the fall of silver, nor the rise of silver or the fall of gold. The equilibrium would have kept uniform by the custom of merchants, regulated as it would have been by supply and demand. I know that the convenience which Commerce derives from gold being passed by tale, is great; but there is no difficulty in re-

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Years.	Imports. Roubles.	Exports. Roubles.	Years.	Imports. Roubles.	Exports. Roubles.
1760.....	15,243,000	18,650,000	1822.....	158,016,698	191,380,770
1768.....	26,712,800	28,275,800	1831.....	233,708,730	257,375,871
1775.....	24,938,000	32,198,000	1834.....	234,788,854	225,968,839
1796.....	47,500,000	52,500,000	1845.....	319,357,340	285,366,733
1807.....	51,524,051	63,000,000	1849.....	365,149,340	326,510,220
1815.....	105,712,800	170,088,885			

	Balance in favor of Russia. Roubles.		Balance in favor of Russia. Roubles.
1700.....	2,000	1796.....	5,000,000
1758.....	2,824,556	1802-1807.....	68,926,289
1760.....	3,413,000	1812-1815.....	261,219,496
1768.....	3,263,000	1822-32.....	186,359,683
1775.....	7,258,000	1849	21,360,186

Such is Russia, such are her area, population, Commerce, mineral and golden wealth.* Were we to name that empire whose policy she has imitated in the consolidation of tribes into nations, and the adaptation of a government to their nature and character, we should cite Rome; and were we to speculate as to what empire she hopes to exceed in territorial extent and in military power and glory, we should say that one, the history of whose Decline and Fall has immortalized the name of a Gibbon. Already her frontiers rest upon the borders of Persia, and but 300 miles from its capital; she is but 70 from Dantzig, the seat of Prussia's Commerce; 170 from Berlin; 300 from Constantinople; 80 from Trebizon; and but 40 days journey from the Indies;† while by means of her railways she can now transport troops from one end of the empire to the other in twice as many days as it once took months, and has already commenced the building of the carriages thus to transport them and their material of war.‡ We do not intend in this paper to discuss the question, as to what effect this last consolidation of her power and centralization of her forces will have on those states and nations in whose capitals have once been heard the tap of the Russian drum, and the response of the Cossack, who shouted, as he passed his Czar, "We will do better next time,"§ but wish, in view of all the facts, to ask and answer this question, What should be the policy of the United States towards this mighty and yet increasing gigantic power! We answer, at once, the adoption of such a policy as shall strengthen the good feelings already existing between the two countries, and the immediate extension of our commercial intercourse with her.

As precedent has often more influence upon men than reason, and interest more weight than argument, we will here state, that as early as 1780 our revolutionary fathers voted to dispatch a minister to Russia, for the purpose of obtaining an acknowledgment of our independence, and forming an alliance with her on the same terms as we had with France. (See *Jour. For. Aff.* 1786, 81, p. 367, 66.) In the instructions thus given to Dana, they say "that you will endeavor to procure from her Majesty the recognition of our sovereignty and independence, and assure her of our desire to number so wise, so magnanimous a princess among our supporters, and our desire to form a treaty with her on the same terms as with his Christian

* The sources from which the two tables on this page were compiled are—Universal History, vol. XXXV., p. 158; Busching, vol. I., p. 704; Edinburgh Encyclopedia, article Russia; Franc. Statist. Soc. des Travaux, (1836,) p. 239; McCulloch's Commercial Dictionary, vol. II., p. 294; Merchants' Magazine, vol. xvi., No. 6; Raymond, and others.

† Sir C. Wilson's Sketch of the Moral and Political power of Russia.

‡ Allison.

§ *Times*, (London,) March 29, 1853.

Majesty. Owing to the Empress's proffered mediation between us and the mother country no minister was dispatched, as peace soon began to dawn upon us, and it was not till 1807 that we sent a minister to reside at St. Petersburg. Our Commerce with her began very early, and below is its aggregate in periods of years, and also the balance against us. Owing to the peculiar manner of making out the reports of our Commerce prior to 1820, we are not able, in reality, to give the gross balance against us, for the value of no article is given unless paying an *ad valorem* duty. Both McCulloch, McGregor, and Pitkin have thus made out their tables, leaving out those goods that paid during this time a specific duty, among which were hemp, cordage, sail duck, iron, and teas, sugars, &c. We give, in a separate table, the amount of hemp, untarred cordage, and sail duck imported during the years from 1801-20.

Years.	Imports.	Exports.	Balance against U. S.
1795-1802*	\$7,812,176	\$223,814	\$7,089,362
1802-1810	12,014,310	5,429,812	6,584,498
1810-1821	8,092,852	12,270,677†	.....
1821-1830	23,027,579	5,136,279	17,891,300
1831-1840	25,083,202	8,840,155	16,243,047
1841-1851	13,633,709	9,277,238	4,356,471

Hemp, from 1800-20, 1,450,536 cwt.; Russia duck, from 1816-20, 92,578 pieces; tarred cordage, do., 3,618,921 lbs.

Our imports from Russia in 1851 were, articles not specified, \$435,681; sail and other duck, \$61,554; sheet iron, \$148,396; bristles, \$168,402; cordage, \$189,004; hemp manufactures, \$79,334; flax manufactures, \$113,394. Our exports, cotton, \$1,297,164; tobacco, \$130,063; and rice, \$21,388, (these only include the principal articles on both sides.)

Total imports, \$1,392,782. In American vessels, \$1,007,981. Total exports, \$1,465,704. In American vessels, \$1,187,116.

These are to us gratifying figures, showing a constant diminution in imports and steady growth in exports. Our export of foreign and domestic produce, at different periods since 1842, is as below:—

	1842.	1845.	1851.	Inc. in 10 yrs.
Foreign produce	\$76,926	\$97,079	\$145,987	\$69,061
Domestic produce	309,867	535,308	1,465,704	1,155,837

These figures demonstrate plainly that a new era is opening in our Commerce with Russia, and what is more pleasing than all, the increase is in those bulky articles that give the most employment to our shipping. In the statement below will be seen the increase in two of these articles since 1832.

	Cotton exported.	Tobacco.
	lbs.	value.
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‡ *Times* (London) March 2d, 1853.

§ Gordon's History of the Greek Revolution, (Introduction.)

Art. III.—THE DISCOVERIES OF GOLD IN CALIFORNIA AND AUSTRALIA.

THE effects which are being produced throughout the world by the large introduction of gold—upon the *value* and *stability* of property—is one of very important import, and in which the whole civilized world has a deep interest. Gold and silver were discovered in the earliest ages of the world. That the ancients were acquainted with mining, there cannot be a doubt. Job was not only acquainted with gold and silver, but was actually acquainted with the manner of obtaining it; “Surely,” says he, “there is a vein for silver, and a place for the gold where they fine it.” He farther adds, that the earth hath dust of gold. Even at an earlier period, Abraham, who lived 2,000 years before the Christian era, purchased a burying place, for which he paid 400 shekels of *silver*, which he delivered, not in coin, but by weight, according to the custom of merchants. This early use of gold by weight, according to the custom of merchants, was afterwards superseded by establishing mints to coin gold and silver into pieces more suitable to facilitate trade and Commerce.

Gold and silver, like all other minerals, have an intrinsic value,—the value of which is in relative proportion to the cost of production. The principle which I state, will hold good for a period of over 4,000 years in the history of the world. It represents wealth in itself, being the production of the sweat and toil of man. Silver and gold are not, as many writers on political economy say, merely the representative of property; gold and silver is real property—is real wealth, and is no more the representative of 100 bushels of wheat, than 100 dollars worth of wheat can be the representative of 100 dollars worth of coal,—for the fact, that each is equivalent to the other; each is real wealth, and not a mere symbol or representative. Nor does gold or silver differ essentially from other items of wealth. The conversion of a bar of gold or silver into coin, does not change its nature in a greater degree than the smelting of iron or copper ore into bars and pigs,—of course the labor of refining increases, or adds to the value in proportion to the cost of labor. Therefore, the theory of many political writers, that the authority of government gives value to gold and silver, in any great degree, is absurd. The whole history of the world gives a lie to the dogma; wise men, legislators, and statesmen, may alter the weights of coin, or lessen their purity, but they cannot make a coin weighing an ounce, containing half an ounce of silver, worth as much as an ounce of pure silver.

Again, the utility of gold and silver in the arts is so great, that they would bear the same relative value, according to the cost of production, even if they were not the material of money,—they would exchange for great quantities of corn, or any other commodities. This is, in fact, the history even before gold and silver were legalized as a currency.

One other position, which has been maintained more or less for centuries is this, *that gold and silver have an arbitrary fixed value*; this I contend is a great mistake; how so many intelligent and eminent writers on political economy and the sciences can have continued this great impractical error down to the present time, in the face of stubborn facts, which have been developed by the operation of the currency for nearly two hundred years, is most astonishing. To say, as they do, that the sovereign or eagle is a fixed, arbitrary measure of value, and measures, in the same ratio as to quantity and value, *at all times*, as a yard stick or a bushel measure, cannot

be proved, but only asserted, for the whole history of currency contradicts it. Men choose gold and silver for the material for money, for reasons similar to those which induce them to use cotton, wool, flax, and silk for material for clothing; and stone, brick, and mortar for material for building.

The ancients early found the precious metals of peculiar specific qualities, which fitted them to be standards and measures of value, and adapted, when in shape of coin, to the purposes of a circulating medium; to this use they are admirably adapted. An eminent writer upon political economy gives the following reasons for the admirable adaptedness of gold and silver for a currency.

1st. Because they are divisible into extremely minute portions, and capable of re-union without any sensible loss of weight or value; so that the quantity may be easily apportioned to the value of the articles purchased.

2d. They have the sameness of quality all over the world. The difference between iron from different parts of our own country and of Europe, is well known to all dealers in that article. The copper of Siberia is superior to that of Germany; while that of Sweden is better than that of Siberia; and that of Sweden is surpassed by that of Japan. But one grain of pure gold is the same, and is exactly similar to another, whether it comes from the mines of Europe or America, or from the sands of Africa; time, weather, and damp, have no power to alter the quality. The relative weight of any specific portion, therefore, determines its relative quantity and value to every other portion. Two grains of gold being worth exactly twice as much as one.

3d. Gold and silver, especially with the mixture of alloy which they admit of, are hard enough to resist very considerable friction, and are therefore fitted for very rapid circulation.

4th. Their rarity and dearness are not so great that the quantity of gold and silver equivalent to the generality of goods is too minute for ordinary perception, nor, on the other hand, are they so abundant and cheap as to make a large value amount to a great weight.

5th. They are liable to less variation than any other article from changes in the relation of supply and demand, including the cost of production among the conditions of supply.

6th. They are capable of receiving a stamp or impression, certifying the weight of the piece and the degree of its purity."

Such are the elements of gold and silver, and for such inherent qualities they have been considered *precious*, and for these only they are the best known in the world for use as money.

In the earliest ages of the world, in a more savage state, when the precious metals were comparatively unknown, wampum, corn, cattle, iron, leather, tobacco, cocoa, and copper, in point of fact, have been *used as money* in different ages and in different countries,—but they have long ceased to be used by commercial nations advanced in civilization. In the early periods of the world gold and silver passed from hand to hand by weight, and according to its market value. I have no doubt it would always have been better for the world had the original mode been continued to this day,—we should then have heard no complaints of the rise of gold and the fall of silver, nor the rise of silver or the fall of gold. The equilibrium would have kept uniform by the custom of merchants, regulated as it would have been by supply and demand. I know that the convenience which Commerce derives from gold being passed by tale, is great; but there is no difficulty in re-

coining, at given periods, coin just the weight by which the custom of the world fixes the value. Before proceeding to apply the consequences of an increased supply of gold by the late discoveries, it may be proper to inquire somewhat into its history in former ages. The subject is of such immense magnitude that I can only give a very brief sketch of the operation of mining, and the quantities of gold and silver retained by the ancients in the early ages of the world.

The history of Solomon gives some information as to the quantity collected during his time. The amount collected in a single year of his reign, was computed at 666 talents of gold,—in our money $1\frac{1}{2}$ millions of dollars. The quantity afterwards became so plenty that silver was accounted as nothing; he also made silver to be as stones in Jerusalem.

The gold which accumulated in Babylon was immense, and vast in amount; the authenticity and accuracy of the amount is given by Herodotus; he says, that the annual tribute of silver and gold which Darius Hystaspes, king of Persia, after completing his conquests, received from the several provinces, about 480 years before Christ, was 14,560 talents of gold—which, in our currency, is \$16,800,000. Xerxes took out with him into the field of war, so much money and valuables as loaded 1,200 camels.

The first coining of gold was by Darius, about 475 years before the Christian era. The coinage was of great purity, and were called Daric's, in honor of the inventor. They were nearly of the value of the American half-eagle.

The wealth of the great men of that age was immense. Pytheus, king of the petty territory Celaena, 470 years before Christ, was celebrated for his immense wealth. Lardue, an able French critic, estimates his wealth at \$17,280,000 of our money.

Ptolemy Philadelphus, the second king of Egypt, after Alexander, was said to have possessed treasure to the enormous amount of 740,000 talents, or \$85,340,000 of our money.

The precious metals were abundant, during the Macedonian Empire, over the whole shore of the Mediterranean. The enormous wealth of the Romans is beyond all calculation. Having subdued every petty province, and become masters of all the then known world, the whole wealth of the world was amassed within the Roman metropolis. Vespasian, at his accession, estimated the money which the maintenance of the commonwealth required, at a sum equal to 1,550 millions of our currency, per annum. The concentration of the wealth of the world at Rome, by the extension of the Roman Empire, fully accounts for the enormous wealth of private individuals. The fortunes of Crassus were equal to 8 millions of our currency, in money, and an equal amount in lands. Pallas C. C. Claudius Isidorus had about the same amount of property. Augustus left property to the amount of 155 millions of dollars of currency. Plutarch, in his life of M. Crassus, says, that no man could be accounted rich who was not able to maintain an army out of his own revenues. Many other instances can be named of those who held vast masses of wealth, and as vast sums expended. Just after the acquisition of universal empire, at that period, a large part of the treasure had been acquired by conquest, and had not been generally diffused among the masses; indeed, the wealth of the Romans was held by a small proportion of its citizens.

Having proved that vast masses of gold and silver were in existence in the remote ages of the world, it may be proper to notice, that, according to Ro-

man history, the rise of property was a necessary consequence of the great increase of gold. As one among many instances which might be named, the house of Marius, at Miseum, was purchased by Cornelia for the sum of 75,000 drachmas, or about \$11,620 of our currency. The influx of gold raised the price of real property enormously; and, in a few years, the house of Cornelia was sold to Lucullus, for the sum of 500,200 drachmas, or \$77,529 of our currency—making a clear profit, by the rise of property, of \$55,909 in the investment. Such was the operation of the influx of gold upon property at this period of the world.

My next inquiry will be in regard to the operation of mining. That a large portion of able-bodied citizens were employed in the pursuit of mining there cannot be a doubt; that they were well acquainted with the art and manner of obtaining gold and silver by mining we have authentic record by all the early historians. To trace out all the sources from which the immense amount of treasure was accumulated my limits will not permit. The probability is, that the discovery of gold was first known to mankind in the eastern part of Asia, and in Egypt; the whole of eastern Asia, extending along the border of the Caspian sea, which contained within its boundaries Persia, Siberia, Tartary, and whatever was known to the Persians in the days of Darius, of Thibet, China, and India, beyond the Ganges, a district on the eastern border of Boetria, where the chain of mountains divides into two ranges, and the desert steppes of Cobbi were all literally dug over before the present era. The mines of Siberia must have been worked 150 or 200 years before Christ. The mines of Egypt and Nubia are said to have produced \$28,800,000 annually; this was the statement of Diodorus, who visited Egypt 50 years before Christ. There can be no doubt that the product of gold and silver from the mines of that country exceeded the quantity which was drawn from the mines of the then known world, in subsequent ages, down to the discovery of America. The mining of gold and silver in southern Africa was carried on to an immense extent; the gold produced was obtained as in the present day in California, from the washing of the streams from the lofty mountains.

The inhabitants of Europe continued in a savage state some ages after the people of Eastern Asia and of Egypt had made considerable progress in civilized life. The inhabitants of the southeast part of Europe, living near the more civilized countries of Egypt and Asia, and receiving from them some refugees, were naturally the first to imbibe the improvements of more advanced stages of society. The knowledge of the precious metals in Europe commenced about fifteen centuries before the Christian era. The Phoenicians gave to Europeans the first impulse toward social life, and first introduced the practice of mining. The most civilized of the people of Europe, in the early ages, were found along the shores of the Mediterranean sea, and it is among them we discover the first steps in mining. The Greeks explored beneath the surface, in various districts in their own country, as well as in their eastern and western colonial establishments, and the searching for ore continued during a succession of centuries.

The Island of Cyprus yielded gold, silver, and copper;—the mines continued to be worked even till the times of the Romans. Gold and silver were also obtained in Italy.

Upper Italy, what is now the province of Aosta, in Piedmont, produced iron, gold, and other metals, also the country around Aquileia, and the whole district of Noric Alps, now Illyria, was exceedingly rich in gold. At

one period it was labored so extensively that the great quantity produced caused a decrease of one third in price through all Italy.

The mines of Hungary were worked about the year 745. The country most productive of silver in remote ages was the Spanish peninsula. If we may give credit to the historian, Agatharchidas, there was a time when the value of silver in Arabia was tenfold that of gold, owing to the abundance of the latter and scarcity of the former metal. The silver mines near Carthage, in Spain, were very productive. Forty thousand workmen were constantly employed in them, the pay of whom was $6\frac{1}{4}$ cents per day. The soil of Sicily has also contributed something to the aggregate of metallic wealth.

The passion for seeking gold by mining, has raged at certain periods in all ages of the world. Such has been the rage for mining at certain periods of the world, that the people were in great danger of starvation in consequence of the immense number quitting their regular farming business, and adopting the life of a miner. The lives of the subjects of Pytheus were sacrificed for want of sufficient food for subsistence, in consequence of the application of labor to the purposes of mining and searching for gold. Pytheus was obliged to direct that only *one-fifth*, instead of nearly the whole of the inhabitants, should in future be compelled to devote themselves to mining operations.

Nature teaches us that gold is only obtained by labor and toil, and is retained with difficulty, creates the greatest anxiety, and in its use, produces both pleasure and grief.

The mines which were worked in the early ages, were nearly all worked out, or ceased in productiveness, with the decline and fall of the Roman Empire.

The effect of an increased quantity of the precious metals on prices has been observed from the earliest period of history. In the time of Solon, an ox was worth three shillings sterling; a sheep, seven pence three farthings—but the increase of metallic wealth increased the price of commodities to five, ten, or twenty times the amount, in the course of two hundred and twenty years. The mining operations, which were so excessive till Rome arrived at the zenith of her power, gradually decreased during the decline of the Roman Empire, so that, in the fifth century of the Christian era, mines ceased to be worked at all.

The population of Asia, under the reign of the Cæsars, were contained in five hundred populous cities, enriched with all the gifts of nature, and adorned with all the refinement of art. The consumption of gold, from the death of Augustus in the year 14, down to the dissolution of the Roman Empire, was gradual and sure, the value of gold and silver was constantly changing. Gold, sometimes nine times the value of silver, and at other periods thirteen times that value. During the declension of the mines the product from them annually diminished, till it became quite extinct. The high rate of the interest of money, with the care taken to supply the necessities of life to the idle and heedless citizens of Rome, may account for the excessive wealth of a comparatively few persons, while the production of the precious metals from the mines had ceased, and the countries near the mines had poured the whole, or the greatest part of their ancient and long accumulation into the universal Empire—there would be a consumption, a decay of the quantity of gold and silver in constant progress, which, by lowering the metallic price of all other commodities, would check that indus-

try, by which alone a country can continue and prosper. The gradual loss of gold and silver was followed by the deepest distress and degradation, causing a gradual diminution of weight and debasement of coin.

The amount of silver and gold in the Roman Empire, before the death of Augustus, was estimated in our money at 1,718 millions of dollars, which, in 482 of our era, was reduced to 417 millions of dollars. About one century after the dissolution of the Roman Empire Mahomet appeared, who, when his power arose, presented an aspect sufficiently terrific to continue the suspension of the mines. Indeed, for the period of nearly two hundred years, up to the year 700, the greatest diligence has been able to discover no trace, in any author, of mining having been carried on, and the diminution of the precious metals had decreased, in the year 806, to the small sum of \$171,635,000.

From this period there was a constant decline in trade, Commerce, and the arts, and the then known world gradually sunk into a state of barbarism; and in that respect this may be emphatically denominated the dark age of the world. Very little, if any mining, was known to be carried on for a period of nearly 800 years.

Though Ferber, in his work on the Mines of Hungary, dates the opening of Chaunitz in 745, and that of Kreznitz in 770, they never produced to any great extent. These mines, at a later period, have been worked to considerable advantage. From 1690 to 1730 they produced, on an average, about \$900,000 per annum of our currency. The mines of Schellgadin, which began to be worked about the year 1378, were of some importance, and were worked up to the commencement of the present century. They were at first worked by the owners, but afterward rented to farmers at £320 yearly rent. In Rothausbury, about the year 1500, the valleys swarmed with inhabitants depending on the mines of gold; but within the last century the decline in product has been very great, so that from the years 1778 to 1800 the produce was only 35 pounds sterling of gold and 340 pounds of silver.

The discovery of America and of the mines it contained, seems to have kindled a violent and vehement passion for exploring the bowels of the earth in search of gold. The excitement was universal in most parts of Europe between the years 1538 and 1562. More than a thousand leases of mines in Europe were taken—the greatest activity prevailed, and most all the people seemed to think themselves within the reach of immediate wealth. A large portion of these mines became nearly extinct at the beginning of the present century. The mines of Saxony, the working of which commenced about the twelfth century, have contributed large amounts of gold and silver. These mines must, however, have been exhausted long ago, as no traces of them can now be found.

Whoever may have attended to the history of mining in the middle ages must have seen, for the most part, similar displays of high expectation followed by disappointment, and of real wealth squandered in the vain pursuit of that which existed only in the sanguine imaginations of wild projectors, and such is the experience of the history of mining down to this day.

It is probable that the mines of lead in Andalusia, which Spain is now working, may produce greater advantages to her than that country ever drew from her lauded mines of silver and gold in the most prosperous times.

The mines of Sweden and Norway have continued to be productive of more silver than gold; they, however, have been of small comparative amount. Britain was so exhausted of silver and gold, or any metal in form of money, that the Saxon writers assert that they used what was called living money, say cattle of all kinds, including slaves.

In the reign of Henry IV. in 1442, by an act of Parliament, a pound of silver was ordered to be coined into thirty shillings, and thus the value of money became double that of our present currency. The increase of the precious metals had become gradual and sure, so that in 1484, Henry VIII. coined the pound of silver into 45 shillings. Again in the third year of Edward VI., 1550, when the pound was coined into 72 shillings—this in a few years was found to be a too extended value—it was reduced, when 60 shillings was coined from the pound, and this continued through the reign of Mary, to the forty-third of Elizabeth, when 62 shillings was coined to the pound, which has continued, with a recent exception, to the present time. As late as the end of the fifteenth century, about the time of the discovery of the mines of America, but before any considerable part of their product had circulated in Europe, a family of such distinction as to need the use of seven horses could be supported for 100 pounds sterling per year.

The prices of wheat and all other agricultural productions ruled low, from the Roman conquest to the discovery of America, a period of nearly 500 years. The prices of that period up to nearly the year 1600, for all products generally, were very even, from which an inference may fairly be drawn, that no great increase or decrease of the precious metals occurred during those centuries. The value of silver and gold, during the whole period, averaged about three times the present value of money. The proportionate value of gold to silver during the middle ages, was less in Asia than in Europe, and at all times might be exchanged one for the other. For a long period, when gold in Asia and Africa was worth no more than eight times its weight in silver, it was worth in Europe and Western Europe from ten to thirteen times its weight. This caused a constant interchange of metals.

Under all the circumstances which are developed by the history of mining, it seems scarcely possible to come to any other conclusion than that the mines of the precious metals on the ancient continent, from the year 1100 to 1500, produced far less on the average, in the several centuries, than those same mines have done in the century closing in 1800. The average quantity of gold and silver coined in a period of 237 years, say from 1272 to 1509, is estimated in our money to have been only 330,000 dollars per annum.

The quantity of coined gold and silver money at the time of the discovery of America was very minute, when compared with the quantity which has been reached since that period, and with that which must have been in existence when the Roman Empire was at the zenith of its power. The scarcity of silver and gold, and the various changes in its relative value has been the cause of adulteration in many foreign countries as well as our own. The subject has been one of constant legislation, against Jews and others, for this debasement of coin.

In the reign of Henry VIII. compulsory laws were established in order to increase the quantity of coin or bullion. England and Scotland decreed that all merchants, foreigners as well as natives, should import a certain quantity of coin or bullion in every ship, in proportion to the value of other goods. They were also forbidden to export any gold and silver under very severe

penalties. It scarcely needs the remark that these laws, like those of Spain and Spanish America of a similar character, could not be executed.

We now come down to mining in our times. The aborigines of America were in that state of rude life which induced them to carry about their persons the few ornaments they possessed, when Columbus first saw them in Hispaniola. The natives wore ornaments of gold about their persons, yet the amount of gold and silver was supposed to be small. It is clear that whatever gold they possessed had been procured by washing the sands in the beds of rivers. Irving says, in his history of Columbus, that an Indian gave a handful of gold for a hawk's bell. The fact that the possession of Hispaniola produced gold in such small quantities, and that even this was exhausted within twenty years after the discovery, in spite of the forced labor of the aborigines, is conclusive proof of the small quantity in their possession at the time of the discovery. Humboldt has estimated the average annual quantity of gold furnished to Europe from America in the period from 1492 to 1500, at \$249,600 of our money. For the next twenty years, up to the invasion of Mexico by Cortes, in 1519, about the same annual product of gold. It may be observed that, up to this time, gold alone had been found in America. The instances of mineral wealth found by Cortes and his followers show that the Mexicans must have made some progress in mining operations, before their country was visited by Europeans. Though the quantity was small, it formed an indication of what might be obtained by more persevering operations. The product of the mines in Mexico during the twenty-five years from the capture of Mexico in 1521, is estimated at \$3,204,000 annually, of our money. About this period a large amount of mineral wealth was spent to adorn public and private temples; the dress of the priests, princes, and nobles was covered with gold and silver embroidery. Spain and Italy, then rich by wealth acquired by mining and Commerce, showed the same feeling of lavish expenditures as the rest of Europe. The discovery of the mines of Potosi about 1545, augmented the amount of metallic wealth. The production of gold and silver for the thirty years after the discovery of the mines of Potosi, was at an average of \$2,112,000 of our currency per annum. From the period of 1579 to 1600, a period of 21 years, the annual average production from these mines was only \$1,344,000 of our currency. Chili, at this period, furnished some gold. Brazil, in the hands of the Portuguese, employed the natives and negroes in washing gold, but the amount thus obtained cannot be accurately estimated.

The successful mining in Mexico at this period excited the miners of Europe to greater exertions, which greatly increased the aggregate quantity of gold and silver in the world; but the annual consumption of the precious metals for manufacturing purposes at this period largely diminished the amount of coin. It is estimated by Humboldt, and Jacob, that there were five times the quantity of gold and silver in possession of mankind in the year 1600 than was in possession of the world in 1492, about the time of the discovery of America. The actual amount of coin at this period was 764,000,000 of our currency. We will now consider the effect produced by so vast an alteration in the quantity of that standard by which the value of all other commodities was measured. The average price of wheat, by Mr. Lloyd's tables, from 1583 to 1592, appears to have been 20 shillings and 9 pence, and from 1593 to 1602, 33 shillings. The rate of prices during fifty years after were from three to four fold increase. The effect was so severe upon the middle and lower classes, that Bishop Lattimer took occa-

sion to preach several sermons upon the great rise in all products of industry. The bishop says, in regard to the great rise in rents, that his father rented his farm in Lincolnshire, at three or four pounds sterling per year. The time is supposed to have been about the year 1500, as the bishop delivered his lecture about 1548. He stated then, that the farm rented at sixteen pounds sterling or more. This advance in rent, however, was more apparent than real, because in the interval great alterations had been made in coin. The pound in silver at the first period was coined into 45 shillings; but when Lattimer preached his sermon the coin had been deteriorated by law—the pound of silver was coined into 72 shillings, consequently, making the proper allowance for deterioration of the currency, the advance in rent was really only 160 per cent, instead of 400 or 500 per cent, as Lattimer thought, and the fact accords with the general advance of price in other commodities. There is good reason to believe that the prices of commodities in other kingdoms advanced at nearly the same rate. The effect of a great rise in prices was, that every one who produced more than he consumed, would find at the end of a few years that his wealth, estimated as wealth is commonly estimated in money, had increased considerably beyond his expectations. Every one who had consumed more than he had produced, would on the other hand find that his wealth, estimated in the same manner, had diminished more than he had anticipated.

That portion of society who are both producers and consumers, would find little or no alteration in their condition, except upon the rise of their real property. While the process of the declining value of money was going on, those who were in debt would discharge their demands upon them in proportion to the length of credit, with considerable gain; whilst, on the other hand, the creditors would receive payment in money of less value than that at the time when they had given the credit; the result being a loss by the creditor, and a gain by the debtor.

It is probable that in all ages of the world, the precious metals have cost more in their production than their value ever repaid—and if the amount of human suffering, degradation, and slavery in the earlier ages of the world, could be reduced to money valuation, with all the miseries which, at particular periods, has been caused by them, it is doubtful if they would balance the evil and misery they have occasioned.

The increase of the precious metals during the seventeenth century, ending in 1700, was estimated at 150 per cent, or once and a half the aggregate amount of coined money was 1425 millions of our money.

Whilst from the years 1600 to 1700, the augmentation of gold was in progress, the general stock of commodities gradually advanced in like manner, though not, probably, in so great a degree as in the preceding century, partly on account of the great increase of population, and the increased comforts and luxuries, as well as the great increase of agricultural products, and the various descriptions of real wealth. The gold and silver mineral in the several South American states seems to have reached its highest point about the beginning of the present century; the annual average of the product of the mines, for 100 years, was equal to \$1,590,000 of our currency. The largest increase in the mines of Mexico, in any given ten years, was in the period from 1790 to 1800, when it was \$231,131 of our currency.

The gold and silver extracted in Peru and carried to Potosi has been considerable in amount and regular in supply, which, added to the receipts from Columbia, Chili, and Buenos Ayres, amounts to nearly the sum produced by

Mexico in the given period. The amount lost by abrasion or wear is supposed to be 1 to 360 parts annually for silver, that on gold 1 to 600. The amount of the circulation of gold and silver comparatively, previous to the present century, was in the ratio of five times as much silver as of gold, circulated as money. As gold has six times the durability of silver, the relative value of the two metals to each other could not be maintained, unless the mines produced the two metals in proportion to the loss on them by wear respectively. The value of gold to silver had varied but little before the mines of Potosi were discovered; one pound of gold, during the Roman Empire, and for a long period after, was rarely worth or ever varied more than from 9 to 11 for 1; or in other words, a pound of gold was rarely worth more than 9 or 11 pounds of silver. Since that period, the relative value of the two kinds of metal has been gradually changed, and gold has become nearly fifteen times as valuable as silver. Humboldt estimated the quantity of gold and silver produced from the whole of America up to 1803 to be 162,000,000 pounds weight of the former, 7,178,000,000 pounds of the latter, which would give silver to gold as 44 to 1. By all accounts it appears that, up to the present century, the value of silver produced has been three times that of gold. Therefore, the loss by wear in process of time upon silver, would raise the price of gold. But it appears that gold has increased in a greater degree during the present century. The increase of prices during the last century is estimated to have been 30 per cent in England, and in France and Spain 50 per cent. By an account kept at the Chelsea Hospital, England, during 60 years, from 1732 to 1793, the advance on bread, beef, mutton, cheese, and butter had been at the rate of 20 per cent, and on oatmeal, coals, &c., still more.

During the period from 1800 to 1840, of the present century, many of the mines on this continent have, by gradual and slow degrees, declined; and though the amount of gold and silver has just yielded the approximate quantity yielded in 1800, yet the whole amount of gold and silver produced by the mines of Mexico from 1810 to 1830, is said to have been an annual average \$11,000,000—the amount produced in Peru not exceeding \$500,000 per annum, and the mines constantly decreasing. On the other hand, the mines of Russia have contributed largely in the amount of gold during the present century.

The paper money which has so much increased during the present century has acted the part of an auxiliary to metallic currency, the tendency of which has been to sustain the prices of merchandise and agricultural products greatly beyond what would have been their price, but for the aid of an increased paper currency. Yet the falling off of increased resources of supply from mining had been going on gradually and imperceptibly till within a few years, say 1830, without creating any uneasiness in regard to the effects of a rise in the precious metals. From the year 1810 down to the year 1840 there was a gradual fall in the prices of all productions, in comparison to the value of coin, which had declined during a period of forty years, 15 per cent, and a natural decline in price of merchandise of 32 per cent.

The only evil resulting from the diminution of those metals is, the discouragement it may present to industry, by an apparent loss, or lessened profit, when the result of labor is reckoned in gold and silver, and not in cattle, houses, and lands. It matters little to him who raises a bushel of wheat, whether it is exchanged for a pennyweight or an ounce of silver, if the pennyweight will procure for him the same quantity of cloth, shoes, furniture, or farming utensils which he may desire.

The production of precious metals in the world at different periods of the present century are as follows:—In the year 1800—

	Silver.	Gold.
From America	\$32,891,521	\$9,000,000
From Europe	4,000,000	1,000,000
From Asia .....	.....	3,188,846
From Africa, &c.	400,000	2,850,000
 Total	 \$37,291,521	 \$15,238,346
Total of silver and gold .....	.....	\$52,529,867

In the year 1843—

America produced in gold and silver .....	.....	\$39,197,628
Europe .....	.....	22,481,115
Africa and other nations .....	.....	3,500,000
Asia .....	.....	7,800,000
 Total .....	.....	\$72,978,743

Of this sum nearly \$39,000,000 were of silver, and \$34,000,000 of gold.

In the year 1848—

America produced in silver .....	.....	\$29,120,000 in gold	\$9,700,000
Europe	7,280,000	"	20,950,000
Asia	4,100,000	"	12,901,060
Africa and other nations .....	.....	"	2,610,000
 Total .....	.....	\$40,500,000	 \$49,161,060

The whole aggregate of silver and gold being

\$86,661,060

The estimate of 1851 is as follows:—

America, in silver .....	.....	\$30,000 in gold	\$93,000,000
Europe	7,500	"	21,000,000
Asia	4,500	"	14,500,000
Africa and other nations .....	.....	"	3,500,000
 Total .....	.....	\$42,000	 \$132,000,000
The whole aggregate being .....	.....	\$42,000	\$174,000,000

The product of 1852 is as follows:—

From America .....	.....	\$124,000,000
From Australia .....	.....	92,000,000
From Europe .....	.....	28,000,000
From Africa and other nations .....	.....	4,000,000
From Asia .....	.....	20,000,000
 Total .....	.....	\$268,000,000

The most remarkable feature in the production of gold and silver, since the year 1800, is the almost fixed receipts of silver, and the very great increase of gold. The product of the whole world in silver, for the first thirty years, was nearly at a fixed point, though slightly and gradually decreasing in America, being nearly three millions of dollars less than in the year 1800. The variation has hardly exceeded \$5,000,000 in Europe and America. Whereas the increase of gold has been gradual during the first 40 years of

this century—the whole increase being from \$15,238,000 to \$34,202,000. The annual product of the world in 1848, was estimated, in gold, at \$46,161,000, in 1851 at \$132,000,000, and in 1852, \$224,000,000 of gold—showing the astonishing increase of nearly 70 per cent in one year. The product of gold being nearly fifteen times the quantity of that mineral in the year 1799 or 1800.

Nothing in the history of the world will bear a comparison in amount mined in any given time. My object in going over so large a space of history is for the purpose of bringing before the reader some of the great movements of former ages in mining, and contrasting their rise and fall, as empires rose and fell. It seems, from the abstract which is brought to your notice, that there are several prominent periods in the history of the world when mining and Commerce gradually came into existence, expanding the powers of human intellect, and advancing civilization, the arts, and sciences. Such was the period commencing in the days of Abraham, and which continued to augment until Rome was in her full power, and mistress of the whole world. This period embraced more than 2,000 years, when, upon the death of Augustus, at the beginning of the present era, the power of Rome began to decline and fall, and for nearly 1,000 years she gradually sank into barbarism. You hear nothing of the consequence of mining, of Commerce, the arts, or any of the avocations of civilized life; all had sunk into a total darkness, so that it was properly called the dark age of the world.

After a period of sleep, the Eastern world gradually awoke and again commenced the introduction of the arts of civilized life. About the year 1100 she began to arise. The arts, Commerce, and mining were renewed with vigor; and in a period of 450 years she regained some of her lost power by a gradual increase of the products of her mines, which were, and are, the handmaids of Commerce and the arts. This period was succeeded by the discovery of America, with her immense treasures of the precious metals, which greatly increased the world in riches and wealth. This period of expansion may be said to have terminated in 1800, having continued 300 years. From 1800 to 1840 the world did not increase in metallic wealth but very little, if any, in comparison with the advance of wealth, population, the arts and sciences, &c., in Europe and America.

It will be seen that at certain periods the increase of coin gradually raised the price of wheat and all commodities, while, on the other hand, the gradual decline of the precious metals lowered the value of wheat and all other productions of the husbandman. The process was slow and sure, increasing for some time several hundred years, and declining again upon the change of value of the precious metals for a long period of time. It may, however, be observed, that at no period in the history of the world has there been in so short a period of time so large a quantity of the precious metals thrown upon the world, as there has been for the last two years from California and Australia. The amount of gold alone produced by the world since 1848 will average an excess of 100 millions of dollars over the ordinary average of receipts of gold for the last three hundred years, or indeed at any period of the world.

Notwithstanding the great increase in wealth and population, both in Europe and America, and the great quantity of silver and gold used in personal ornament, domestic utensils, &c., for which purposes the consumption is estimated at \$28,800,000 annually, may be somewhat increased, yet the larg-

est part of the product will be in coin, and, according to the practical experience of ages, will surely depreciate the price of gold. The transition may be slow, but if the present increase is maintained for forty years, those who then live will see as great a depreciation of gold as has ever taken place in the history of the world. The laws of nature and of trade confirm the assertion; and if there should be no increase in the amount of silver, more than to maintain the present maximum amount in the world, it will measure the value by the depreciation which will constantly take place.

The only hope we have that the evil may be stayed is the falling off of supplies, or the high cost of mining, which will lead to its abandonment in a great measure. The probability of the abandonment of mining, however, is quite out of the question at present, owing to the large amounts obtained by mechanics and laborers in California for labor. The population of California in 1850, according to the United States census, was 224,000, and according to a census taken last August, 260,000, showing an increase of only 36,000 in two years. Provided one-quarter part of the population were miners, the number for the last two years could not have been less than 56,000. The estimate made by those who reside in California is, that the number of miners has reached 75,000 the last year. We, however, take the former, the smaller number being probably the surest; if, then, the number be fixed at 56,000, and the gross income be \$3 per day, which seems likely to approximate to the truth, the amount of gold mined in a year would amount to \$54,920,000. That this approximates somewhere near the result, will appear by the semi-annual circular of Messrs. Hussey, Bond & Hale, of San Francisco, made up to the 30th of June, 1852. It is evidently prepared with great care, and is probably as reliable as any statements which have been made in regard to the production of gold in California. They state the entire production of gold as follows:—

Received at the various mints in the United States in 1848.....	\$44,177
" " " " " in 1849.....	6,147,509
" " " " " in 1850.....	36,074,062
" " " " " in 1851.....	55,938,232
Manifested shipments to the U. S. in Dec. 1851, which did not reach the mint that year.....	2,910,214
<hr/>	
Making the whole aggregate shipped to the United States up to December 30, 1851.....	\$101,114,194
Shipments to Chili in 1851, by official returns.....	2,872,000
Shipments per steamers to Europe and various countries, as declared on manifests (<i>not including Chili.</i>).....	3,600,000
Other shipments not manifested, and known shipments by sailing vessels to various destinations.....	2,000,000
Add estimate of shipments <i>via</i> Panama, by same course in 1851, for which destination was not declared.....	1,800,000
<hr/>	
Total estimate of exportation to foreign countries in 1851.....	\$9,772,000
The early foreign trade to this country was very large in 1849 and '50, from Pacific ports, the remittances were made chiefly in gold dust. The aggregate shipments to foreign countries for 1848, 1849, 1850, is therefore, assumed to be as large as that of 1851—It is therefore estimated at.....	9,772,000
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Total estimates to foreign countries to December 31, 1851, which would not reach U. S. Mints.....	19,554,000
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Grand Total.....	\$120,658,194

Estimated amount taken overland to Mexico, and by passengers to Europe and other countries, exclusive of Chili and the United States, 5 per cent on the above.....	6,032,909
In hands of bankers and merchants in San Francisco, December 31, 1851.....	5,000,000
In hands of bankers and traders in other parts of California, December 31, 1851.....	2,500,000
Estimated yield of the mines, not brought forward, December 31, 1851, say.....	2,500,000
Circulation of California, estimated at \$20 per head on population, December 31, 1851.....	4,240,000
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Total estimate of the whole production of the mines to December 31, 1851.....	\$140,931,103
The estimated product to June 30, 1852, is stated to have been.....	33,849,774
The bullion on hand June 30, 1852, in California, is estimated at the same amount as that assumed to be on hand, December 31, 1851..	
The estimated product from June 30, to December 31, 1852, is estimated the same as the first six months of this season.....	33,849,774
<hr/>	
Estimating the entire product of 1852 at.....	\$67,699,548

It appears by this statement, that the product of 1852 is not much, if any increase, over the year 1851. The statement is undoubtedly as favorable as can be made. I find no estimate of coin imported to California, which must have been large in the aggregate; if each emigrant had only on an average 50 dollars of coin on arrival in California, which is a low estimate, it would have formed a basis of currency amounting to ten millions of dollars. If no note is taken of this fact, the estimated production may be too large. For all practical purposes, however, it is not of much consequence.

The mining was in full operation during the year 1850. Taking the three last years, they have produced upon an average about 65 millions per year of gold. This result would prove that the estimate of the average earnings of the mines at \$3 per day, to be rather an undue estimate—but, it no doubt approximates nearly to the fact. Gold being the only product of California of any consequence, develops one singular fact in regard to the regulation of the price of labor, being measured by the ratio of a supposed quantity of the precious metal obtained by a day's labor. For several years the ordinary price of day laborers has been from four to five dollars, and at certain times higher. The gross earnings of miners being, on an average, from three to four dollars per day, has fixed the price of all other labor in as great or a greater degree, and this being so much higher than labor in any other portion of the world, will naturally attract immigration, until the mines are exhausted, or until the product per day is reduced to a more equal ratio of prices paid for labor in other portions of the world. If the present supply of gold, however, should continue thirty years, it will raise the price of labor in America and Europe, one hundred per cent—and, as probably would be the fact, the supplies which support existence would rise in the same ratio. The laboring classes would not be any richer, in consequence of money being of so much less real value.

In regard to the mania for gold hunting which at present exists, it is not my purpose to say much, when almost every one is rushing to the banks of Feather or Yuba rivers, many with the frost of years, to make their pile before death—deserting their families and homes for the chance of heaping up dross on the shores of the Pacific; living in huts in the mountain gorges, or on the bank of the Sacramento and its tributaries, they often lament under

the sad realities of a broken spirit, disappointment, sickness, exposure, destitution, neglect, and an unmarked grave. Such is the sad fate of thousands; and such is the unsatiated thirst for gold, that thousands stand ready, and are constantly taking their places. Yet out of this impelled exertion of thousands of our countrymen, California will have increased the wealth of the country; extended civilization, Commerce, and the arts, and improved the condition of the laboring classes. And such is the fact in regard to Australia. It will open the way for the improvement of thousands of the poor of England and Ireland, and extend Commerce to more remote portions of the earth.

The facts here stated in regard to the effects of the increased and diminished supplies of gold and silver, for a period of over 4,000 years, show that the certain changes between the value of gold and silver, are as regular and certain as the laws of motion and the edicts of kings; and the restraints of legislation have been of no avail.

One of the effects of the large influx of gold will be (as is commonly said), to raise the price of silver to a still higher point.

I, however, will not use the words in a directly opposite sense to which they apply.

The fact that silver has risen in value is not true. And why should we not say gold has depreciated. From the settlement of our country, up to 1830, silver composed over three-fourths of our whole quantity of coin. The mint being established in 1792, the eagle, by an act of Congress, was to contain 247 $\frac{1}{2}$ grains of pure gold, and 270 grains of standard gold. The dollar contains 412 $\frac{1}{2}$ grains of silver; both coins by law being legal tenders; as it most always happens, by a double standard, one or the other of the standards is likely to be over estimated as compared with the current market value in Commerce. In this case the gold was undervalued, and never circulated currently with silver, till the act of 1834, by which Congress altered the eagle in value, by rating 23 $\frac{2}{3}$ grains of gold at the value of a dollar, instead of 24 $\frac{1}{2}$ grains, as fixed by the act of 1792: thus committing a more fatal error than at first, in an opposite extreme; debasing the gold below any other country,—being equal to a change of over 6 per cent in the mint value of the coin. The consequence was an immediate change of tactics by our foreign creditors. All foreign payments were made in silver, or foreign gold. And from that day there has been a constant drainage of silver from the United States, which will never cease so long as it is to be obtained in any quantity. That this difference of relative values might have been adjusted, at an early day, to a more exact relation, none will deny.

On the other hand, as I have said before, no *law* can fix by legal enactments the exact relative values of silver to gold, which will hold for any length of time. It is just as reasonable, and just as proper to fix the price of wheat and other commodities by law, as to fix by statute an unchangeable price for an ounce of pure gold; for no man will take any quantity of a depreciated coin when he can obtain one of more value, both by law bearing the same standard of measure.

The disgrace which our government is bringing upon itself, by debasing the standard value of silver, after having debased the standard of gold below that of any other nation, deserves the severest censure of every merchant in the world. That the United States of America, in the nineteenth century, with all the light of civilization, and advance in science, should adopt the dogmas of half civilized kings of the middle ages, in debasing

the currency of gold and silver, seems to me a most unwarrantable procedure. The most scientific men in Europe have examined this question, and declare, what is self-evident to merchants, that there has been no rise in silver for a long period; and this paper proves that the production has been very uniform and even for a period of sixty years; slightly increasing, but small in the aggregate.

The effect of the act of Congress, debasing the larger silver coin, will only widen the breach, and drive out of circulation every dollar of standard silver in the country. And I will venture to say that every coin of full weight of pure silver, will gradually, but surely, disperse. If Congress only had the courage and honesty to repeal the act of 1834, and adopt the gold standard of 1792, they would do the country an immortal honor, and repay, in some measure, the error made at that time. *Justice says*—“Keep your contracts inviolate, give no more depreciated metal for the same nominal sum.”

That gold has depreciated in value, there is not a shadow of doubt. The movement of silver in England for the last two years demonstrates the imperceptible fall in the value of gold. The Bank of England had, in 1847, a reserve of silver in its vaults to the amount of £1,013,035, or in our currency, \$4,910,568. Her stock of silver has been gradually reduced, so that on the 4th of September last, she had only £19,154 sterling of silver on hand. And what is the reason of this drain of silver? The depreciation of gold. The bank being compelled by law to pay out gold at £3 17s. 10 $\frac{1}{2}$ d. per ounce; and obliged to buy at £3 17s. 9d. per ounce. England having over valued silver, restricted the amount to be paid as a legal tender, at 40 shillings. Such has been the fixed price of gold by statute for many years; gold only being a lawful tender. The present aspect of the world in relation to the supply of gold is, that its continued increase will further disturb the relations which silver and gold bear to each other. If such be the fact, England will be compelled to repeal the law fixing the standard price of gold at £3 17s. 10 $\frac{1}{2}$ d., and compelling her to purchase gold at £3 17s. 9d. per ounce; or one thing is certain, her coffers of silver will never be replenished, unless gold shall rise in value by diminished supply. Therefore, supposing the present supply of gold to continue, the present fixed price for the Bank standard of gold will compel her in the course of a few years to buy more gold than she can conveniently manage, and which may seriously affect her movement and safety, unless the standard law is repealed or modified.

In regard to its effects in the United States, the consequences will be a gradual rise in prices, and expansion of trade.

The immediate effects of so large an influx of gold as is now pouring in from Australia and California, will be more sensibly felt in the United States and England, at first, than in any other parts of the world, in consequence of the large amount of paper currency issued in the two countries, more particularly in the former. Where we have had for a year 875 manufacturers of paper currency, who supply 170,000,000 of bills, of a representative value. This issue may cause a reserve of 40,000,000 of coin, and deducting that from 170,000,000, we have 130,000,000 of paper currency,—the hand-maid of gold and silver, to stimulate and inflate the currency! The effect of excessive issues of paper, with the rapid influx of gold, will cause an effective rise in property; though it may be slow in expanding, it is sure; and the direct effect upon property will be the depreciation of all kinds of personal property, like mortgages, bonds, annuities, &c., payable at a future

day; and a gradual rise in real property. The effect may be thus,—if you have a bond payable 20 years hence, you are, (unless a stipulation to the contrary is made,) bound to take at its maturity, the standard currency. If, therefore, when the payment matures, gold has fallen 10, 15 or 20 per cent, you have no remedy but to pocket your loss. You will probably find yourself in the position of Bishop Latimer, who had his salary raised, and, in course of time, found he was no better off. His loaf for which he paid four pennies, was no larger than that he formerly paid two for, and it took double the money to pay rents. He consequently delivered several sermons, portraying the evil times in which he had fallen. He complained that rents had risen 400 per cent in the course of fifty years; and that corn and bread were enormously dear. He charged the rise to certain evil disposed persons in the kingdom, of combining together to forestall prices.

The learned Bishop never apprehended that his king, for a long period of years, had caused laws to be made, *debasing gold and silver coins*, which was one of the principal causes of the great rise of rents, and other commodities; it requiring twice as much coin at that day to purchase any given quantity, as it did fifty years previous.

There are some financial writers of the present day, who are in the same position as the old Bishop; who may, like "*Irving's Dutchman*," wake up after twenty years of sound sleep, and borrow his neighbor's spectacles for the purpose of taking an observation.*

C. S.

Art. IV.—AQUEDUCTS AND CITY SEWERAGE.

FREEMAN HUNT, *Editor of the Merchants' Magazine*.

DEAR SIR:—Although the following paper was prepared with special reference to a system of sewerage contemplated by the municipal authorities, and laid before them on the 7th of June, 1853, it is, on account of the universal application of sewers to great cities, particularly appropriate for insertion in a journal like the *Merchants' Magazine*, which has ever been devoted to all topics pertaining directly or remotely to whatever contributes to the advancement of trade, industry, and the very existence of the marts of Commerce.

I will merely add, that in this communication I have endeavored to discuss the whole science of hydraulics upon which sewerage is founded, and with what success I leave to the judgment of the intelligent readers of the *Merchants' Magazine*.

Yours, &c.

JERSEY CITY, July 25.

C. F. DURANT.

TO THE HON. THE MAYOR AND COMMON COUNCIL OF JERSEY CITY:—

A citizen of Jersey City, feeling a deep interest in its prosperity, and largely interested in the municipal taxes and assessments, begs to offer a few objections to the "Water Commissioners' report upon a plan of city sewerage."

* In the preparation of the preceding article, the author has consulted as authorities, Diodorus, Herodotus, Gibbon, Humboldt, Irving, Jacob, Gouge, Hunt's Magazine, and other authorities.

The plan embraces a canal 100 feet wide, $2\frac{1}{2}$ miles long, and 6 feet deep, on the north, west, and south boundaries of the city. The propositions submitted by the Commissioners in favor of adopting the canal plan, appear to be the following:—

- “1st. Its economy.
- 2d. Its adaptation to the locality of Jersey City.
- 3d. Its decided superiority to any other system of drainage.
- 4th. The low land in the back part of the city will be increased in value, and made as accessible for boats as that bordering on the Hudson.
- 5th. It dispenses with vaults and cesspools and provides for the connection of privies.
- 6th. The cleansing is effected at a trifling expense.
- 7th. It is without any complicated mechanical contrivances.
- 8th. It will need but few repairs.
- 9th. It will in a few years increase the value of land in the western part of the city, by a sum far beyond the cost of its construction.
- 10th. Its other collateral advantages.”

Of the ten foregoing propositions not one has been sustained, and I beg your indulgence to show that not one can be established. They are all fallacious, and, excepting the fourth proposition, not one has a seeming foundation in established facts.

First. Its economy, if it has any, must be inferred from the fact, if the fact exists, that the “flushing water” necessary to cleanse the sewers, will be had at less cost from the canal than from some other source. The commissioners have not stated the quantity of water required for flushing: indeed, they seem to express a doubt whether any water is required for that purpose when they say, “Perhaps the introduction of a small stream of water, constantly running, may be sufficient in itself to keep them clear of deposit.” But, from their statements, we may compute the largest quantity that can be supplied by the canal to any sewer in any given time. The sewer at western boundary is 2 feet diameter in the clear; the bottom to be $1\frac{1}{2}$ feet below meadow or high water. The inclination or fall in surface of canal at sewer, due to velocity on entering sewer, is not given; but we may assume it at 6 inches; this would allow the water to stand 1 foot deep, or to the center of the sewer. The velocity in sewer we may compute from the statements; sewer at Hudson street, 6,000 feet distant from canal, to be 1 foot below low water of the medium 5 foot tide. As sewers below low water are not known to be used or useful in any enlightened country, it may be presumed that the commissioners, on second thought, will place it at low water: this will give an inclination of $3\frac{1}{2}$ feet in 6,000, or 1 in 1,714, or .00058 per foot. Then, by Dubuat’s laws, represented in the formula

$$I = \frac{V^2}{C R} \quad \text{where } I \text{ is the surface inclination, } V \text{ the velocity per second, } C \text{ a constant coefficient of 10,000, and } R \text{ the mean radius, all in unity, we have}$$

$$V = (\sqrt{C R I}) = 1.7 \text{ and the 2 feet sewer at canal filled to center, or a sectional area of } \left(\frac{2^2 \times .7854}{2}\right) = 1.57 \text{ and hence requiring } V \text{ time } 1.57 =$$

9,608 cubic feet per hour, which is ample time, and all the time that can be daily economically employed in flushing sewers that terminate at or below low water mark. In a former statement, it appears that the city will have many times 9,608 cubic feet of water daily, more than is required for

many years to come; and this abundant and superabundant fresh water has already been paid for, or contracted to be paid for, so that it will cost nothing, or at least the turning a stop cock to allow 9,608 cubic feet of it to run in one sewer each day, if attended with 75 cents cost, cannot equal \$73,414, the estimated cost of the canal; and, therefore, the canal plan has not "economy in favor of its adoption."

Second. The only adaptation of the canal to the sewers, is that it can furnish, at high water or low water, 9,608 cubic feet of flushing water, for one hour per day, to each sewer laid on a grade which the commissioners deem best adapted to the locality of Jersey City. Now, the sewers which the commissioners submit as the best, may require for flushing and scouring, that the water shall move with a velocity greater than 1.7 feet per second. But by the physical law that governs its flow, and by the elements given, the canal cannot supply water to move faster than 1.7 in the sewers, while the water which the city is bringing from another county can, on account of its elevated surface, furnish a current much greater than 1.7 feet per second in the sewers. And therefore, the canal plan is not "adapted to the locality of Jersey City," because the surface of canal is not adapted to the grade of sewers which the commissioners offer as the best for the locality.

Third. The decided superiority in one plan over another should be manifested by some token of cheapness, beauty, durability, or other commendable quality. So far as the canal is concerned in the drainage of Jersey City, it certainly will cost all that it has been estimated at, without furnishing water at a greater velocity or of a better quality than from a cheaper source. It will hardly be deemed an ornament even by the commissioners. The estimates provide for plank and other timber, though nothing is said about fifty, more or less, street drawbridges, which would probably decay as soon as the stone reservoir on Bergen hill. The commissioners have not named any other decided merit in the canal, and as no other decided merit appears in the report or map, it is safe to conclude that the canal system has no "decided superiority over any other system of drainage."

Fourth. It is said "the low land in the back part of the city will be increased in value." That is plausible to some, and may be true. But that has nothing to do with the system of sewerage. If the owners of low land in the back part of the city desire to build a canal to increase the value of their land, the legislature may grant them permission to do so, under proper restrictions, but it is not probable that they would be permitted to levy a tax on the high land at the front part of the city to pay the interest or principal of its cost in construction. If all the owners of land through which such a canal might pass should join in the speculation, there would certainly remain adverse interests and rights that would require some attention. The owners of property on the eastern slope of Bergen hill might legally claim the right to use the canal as a common sewer, to receive the wash from their privies, cesspools, and other sewerage matter. The citizens of Jersey City might reasonably object to such an open receptacle of filth surrounding them on the land side with mephitic odors. The traveling public and the grand jury of the county might need to be consulted on the form, dimensions, and structure of the numerous street bridges to be erected and maintained. When all these conflicting interests have been reconciled, it will remain an open question whether the value of the low lands in the back part of the city will be increased by the operation. And, on a canal with twenty or more drawbridges, and a five foot tide at high water only,

the low lands in the back part of the city will *not* "be made as accessible for boats as that bordering on the Hudson," where more than five feet can be had, and accessible at all hours. There are, probably, not two men in the city who would deem their lands increased in value by a canal: and if an attempt is made to carry out the projected scheme of the commissioners, they will probably find themselves legally bound in damages for the land occupied by the canal, at the rate of 250 dollars the lot of 25 by 100 feet, or, including streets for the whole route of $2\frac{1}{2}$ miles, at the rate of 200 dollars per lot, amounting to 105,600 dollars, to be added to their imperfect estimate of 73,414, making the sum of 179,014 dollars, besides some fifty drawbridges that have been strangely omitted in the estimated cost of a canal that is supposed will increase the value of low land in the back part of the city.

Fifth. Any system of sewerage may "dispense with vaults and cess-pools." It is only necessary for those who frame the system to say they are dispensed with, and it is done. The framers may also provide for the connection of privies, and it is at once provided for. But in those cases the whole is done by the framers of the system, and whether well or badly done might be a subject for discussion when we see what has been done, and what facilities were at hand for doing the work. But when the commissioners say, "it, [meaning, as understood, *it*, the canal,] dispenses with vaults and cess-pools, and provides for the connection of privies," they are giving a character and credit to the canal that is not due to it, and which is not shown to be due to it by any fact or any element in their report. If inclination, or water, or velocity in sewers, are the essential elements for performing those parts of the system, then the Passaic water, abundant and most elevated, was *more* efficacious than the canal. And hence, "it," the canal, does *not* "dispense with vaults and cesspools," and "it" does *not* "provide for the connection of privies."

Sixth. "The cleansing is [not] effected at a trifling expense," when the canal, constructed for the sole purpose of cleansing the sewers, is shown, by corrected estimates, to cost 179,014 dollars, with a probable addition of 50,000 dollars for drawbridges, and an annual outlay of at least 6,000 dollars for repairs and attendance. The annual repairs will represent a capital of 100,000 dollars, making a grand total of 329,014 dollars, or the interest of that sum, as the annual cost of cleansing the sewers. It is certainly *not* a "trifling" sum to pay for cleansing sewers. Especially, when we have the means at hand for cleansing them without cost, or without any additional cost to that which is already incurred for the introduction of the Passaic water.

Seventh. There is a certain degree of complication about canals in general, and the one proposed by the commissioners is not an exception to the general rule. Its construction is compounded of digging, piling, bracing, planking, arching, or tunneling under one or more railroads; drawbridges for all low streets, and arches for all roads and streets at the foot of Bergen hill; and two tide-gates, which, on account of the precarious soil in their localities, will require the best mechanical and engineering skill in all the board of commissioners to make them efficient and durable. And, however introduced into the head of sewers, the water will require stop cocks, cranks, or sliding gates, so that "it is [not] without any complicated mechanical contrivances."

Eighth. Those portions of piles and pine planking that are above water,

together with the timber in bridges and tide-gates, will decay, and need entire renewal in periods of less than ten years. The 6 feet 4 inches of solid earth to raise the meadow up to the grade which the commissioners lay down in their system of sewerage, will, judging from the railroad filling, so press downward, lateral, and upward, at and in the canal, as to fill it entire with mud in periods of less than five years. So that, in periods averaging seven and a half years, at least two thirds of estimated cost of canal, aside from the fee to lands, must be paid for over again. And therefore, if the commissioners mean the word "*few*" to apply to the unit of our money, or to hundreds, or thousands of dollars, then their statement that "it will need but few repairs," is *not* sustained by any elements or any facts in or out of their report on a system of sewerage.

Ninth. With and without canals, real estate, including the low lands in the back part and in the front part of American cities, has, within a few years, generally increased very much in value. The cause, or combined series of causes, that raised the land to its present increased value, are, at the present time, supposed to be well understood by many men. A few claim to have foreseen, and years ago predicted, the result. The elements for almost prophetic vision, no doubt existed before the present century began; and it is barely possible that some comprehensive minds, well trained and well balanced, did long ago see the elements in such clear and distinct outline, as to predict the precise present value of each city and of each particular district and building lot. The subject is certainly prolific of thought and of words. It is not without interest, and may at proper times, on suitable occasions, be discussed with some profit. Experience shows that some canals have increased the value of property, while others have lessened it. The Erie and the Morris are vivid illustrations of their particular adaptations and influences. The canal in Newark is generally deemed a nuisance; property on its border can be now rented or purchased at less price than that which is more distant. Bergen street has all the advantages of the southern bay. Property in that locality should be the most valuable and most desirable for residences. But the Morris canal passes through it, and the lots are now held at less price than those in any other upland part of the old city limits. Experience shows that if the canal was filled up to-day, the property on its border would rise 25 per cent in value to-morrow. If the commissioners will admit of a substance in place of a name, then we have the required elements for predicting the probable and comparative value of land on the border of the canal in the western part of the city for "a few years" and for the next half century. The present Mill creek occupies the site of the contemplated canal: it is open to navigation nearly the entire length, except where the railroad crossing has pressed it out of existence. It has all the characteristics of a canal except in name. Let us call it a canal! It has been a canal of as great capacity as the Morris canal for more than fifty years. It runs through the low land in the western part of city. Its navigation has never been disputed; and yet property on its border is now offered at the lowest, much the lowest prices, of any in the city. For the past few years, and for the past fifty years, property has risen *less* on the border of Mill creek than it has in every other part of the city more distant from it. And therefore, every available element shows that the canal "*will [not]* in a few years increase the value of land in the western part of the city by a sum far beyond the cost of its construction."

Tenth. "Its other collateral advantages" have not been made apparent by

any showing of the commissioners; their entire report has been read carefully, and in vain, to find the least hint or allusion to what is meant by "other collateral advantages." The idea has suggested itself that perhaps the prospective revenues in the form of canal tolls, were intended to be covered by "other collaterals." This hypothesis is strengthened by the fact that a subsequent statement from the commissioners to your honorable body suggests the appointment of toll-gatherers, and provides ways and means for the surplus or deficient receipts. Assuming *tolls* to be the meaning of "other collaterals," then we have the required elements at hand to compute the exact amount of revenue to deduct from the interest of \$329,014, the approximate cost of its construction. For a canal of $2\frac{1}{2}$ miles in length, and tide gates a mile apart, it would not be prudent to appoint less than two toll gatherers, at a salary of five hundred dollars each. Less than two might be a serious hindrance to navigation in case a vessel arrived at the Communipaw gate while the toll gatherer, if but one, happened to be at the Hoboken cove gate. Before he could receive official notice that a boat was waiting his kind offices at the southern gate, the high tide that never waits, would have passed away, and the boat, if it had round bottom, would have careened over to dump the deck load into the mud. It is not certain, however, that the city or the commissioners would be liable in damages for the loss of the deck load; because it is not probable that a boat would ever enter the canal. The creek has been open and free to navigation for the last fifty years, without receiving a customer, and it is not probable that the custom would increase in the next fifty years, even if the name is changed from "Mill Creek" to "Canal." There has been a large oakum factory on the creek for several years. The owners, Davy & Mills, have all the depth of water that the canal plan can give, and yet they prefer to use carts instead of boats to transport their goods to New York. Such would probably be the practice of every manufacturer who chose to locate in the western part of the city. And hence, there would be no boats to enter, and no tolls to receive. And hence, it has *no* "other collateral advantages." But the salaries of the toll gatherers must be paid in cash or bonds, making \$1,000 to add to the former estimate, or the round sum of \$330,000 to build a canal which can furnish flushing water at a velocity of only $1\frac{7}{10}$ feet per second, when $2\frac{1}{2}$ or 3 feet per second is declared to be required; and when more than 3 feet per second could be had by paying a man seventy-five cents for turning a stop-cock one hour each day.

There are some collateral statements in the commissioners' report that show a high degree of hasty and careless computation. A degree of carelessness that is almost unpardonable when it relates to a system of drainage involving an expenditure of half a million of dollars for sewers, besides a greater amount in raising the streets to meet a convenient grade. There was no necessity for discussing what they call the "first plan," unless they intended to recommend it for adoption. In condemning it, there was no necessity for carelessly misrepresenting it. It does *not* require "the marsh west of Coles street to be raised 16 feet;" it does *not* require any street or part of street "to be raised 16 feet." It does *not* require "the drains to discharge 3 feet under high water." It does *not* require "the bottom of drain at foot of Bergen hill to be $9\frac{1}{2}$ feet above the marsh level." And it does *not* require "7 feet for height of drain and the requisite covering of earth." If the canal plan can discharge 1 foot below low water, surely the "first plan" can, with perfect safety, discharge at low water. If the canal plan

can begin with a 2 feet drain, and if the so called "new system" shows "much smaller pipe drains to be more efficient when flushing cannot be resorted to," then certainly a 1 foot pipe drain will apply to the "first plan" the first thousand feet, where the drainage comprises a very few acres. Then $2\frac{1}{2}$ inches per 100 feet, is $12\frac{1}{2}$ feet for 6,000 feet, or $7\frac{1}{2}$ feet, *not* " $9\frac{1}{2}$ feet" above a 5 foot tide or meadow, and 2 feet more will cover the pipe a foot at top, making $9\frac{1}{2}$ feet instead of "16 feet" for the highest grade of any point west of Coles street.

If the raising of streets is enough to render the adoption of the first plan "impracticable," then the same argument should apply to the canal plan. Because the canal plan proposed to raise the streets west of Coles street 6 feet 4 inches, which is within 3 feet 2 inches of that required for the first plan. Again, on what authority? on what facts? on what elements do the commissioners recommend the streets to be raised "6 feet 4 inches" for a particular canal plan, and in the same report, declare the raising of streets for a first plan to be "*impracticable*?" Your honorable body hold the recorded fact that parts of Warren and Grand streets were *practically* raised more than 12 feet. Much of the dirt to raise those streets was brought from *beyond and through* the low lands in the back part of the city. That fact is an important element to show the *practicability* of raising any street "west [or east] of Coles street."

Collateral to this subject are the commissioners' statements about the merits of the old and new systems; and the previous want of information that is now furnished by a Mr. Roe, Mr. Gotto, and others, through the London Board of Health and Metropolitan Sanitary Committee, to whose united labors the world is indebted for "the most valuable information now to be obtained upon this subject, as well as for the improved system of small drains, &c." These deliberate and profuse statements, unless they are shown to be erroneous, may lead into great errors and great waste of money in constructing canals and sewers and aqueducts, in violation of the well established and well known principle or physical law that governs the flow of water.

It is a mistake to suppose that the low districts in and about London are similarly situated to Jersey City. If the low land in and about both London and Jersey City were level with high water, that would *not* be "similarly situated" with regard to drainage by flushing with a tide canal or tide water. Because in flushing, as in running water, inclination of surface is an essential, an indispensable, an *imperative* element. The inclination, in such cases, can be found only in the difference of surface level between high and low water marks. And, as London gives 19 feet, while Jersey City gives 5 feet, they are therefore *not* "similar," because one is nearly four times greater than the other.

It is an error to suppose that "the best evidence given before the parliamentary committees, and referring to our own experience in this country, that the minimum descent necessary to be given to drains to prevent an accumulation of deposit, where an additional quantity of water cannot be had, is found to be 5 inches in 100 feet." The words "additional quantity" are not well understood; but suppose the meaning is, additional quantity of water to that furnished by the rains or soil of a particular district; then the whole statement falls by its own gravity. For, in the same report, we are told that Mr. Phillips and Mr. Gotto, who appear to be very respectable witnesses, say or testify that "in main sewers, with good depth of water, [no matter

where they get it,] 1 in 1,000 is allowed." Now, if "good depth of water" is the great requisite, and if Jersey City has no springs or soil, or rains, or water works, to furnish it, what can prevent a main sewer from Mill Creek to the Hudson, starting 3 feet below low water, and rising 1 in 1,000, or 6 feet in 6,000 feet to Mill Creek, where it will stand 3 feet above low water, and be sure to have a *very* "good depth of water" for 20 out of every 24 hours during each day. That will satisfy all the requisites of the London committee. And besides, it appears that the experience of commissioners in this country, enables them to say that a main sewer discharging 1 foot below low water, and rising to $1\frac{1}{2}$ feet below a five foot tide at a canal 6,000 feet distant, or with a rise of 1 in 1,333, "may, perhaps, be kept clear of deposit by a *small* stream of water constantly running." Now again, if there should happen to be no rains, and no canal, but a half dozen or more houses at the upper end of the sewer, and using enough Passaic water to keep a *small* stream of water constantly running, then *without* "an additional quantity of water," the small constant stream "will, perhaps, keep it free from deposit." So that the statement about 5 inches in 100 feet being the minimum descent required by the English and American testimony and experience, to keep a sewer free from deposit, was a mistake of the commissioners, and is virtually withdrawn by those who presented it.

It is, probably, true that "in all the English reports upon the subject of sewerage, which have been published up to 1850, there is a want of that definite information upon which a correct decision could be formed upon the size of the sewer and the requisite inclination necessary for draining any given locality." But it is *not* true that "this information has been very recently furnished by Mr. Roe, and published in the Report of the Board of Health for 1852." The "definite information" from Mr. Roe, appears from the commissioners' report, to be tables giving the diameters, level, and inclination of sewers and drains to convey away rain and other water, from acres of land and numbers of houses; and, they are said to be results of observations extending over a period of 20 years, in the Holborn and Finsbury divisions.

So far, the information is "definite." But there is *not* a particle of information, "definite" or indefinite, in the tables, "upon which a correct decision could be formed upon the size of the sewer and the requisite inclination for draining any given locality." It contains *not* one correct requisite element: *not one*. The quantity of water falling on a particular number of acres and particular soil and locality, is definite information, for some definite purposes; but the quantity of water that reaches one point of the sewer in any given time, is the essential element in constructing sewers. This is not furnished in the tables. The quantity of water, *with inclination of surface*, and time of passing a point or section of any sewer whose diameter and form, or area, is given, are definite and essential elements "upon which a correct decision could be formed." But there is *none* of this in the tables, and there is no information in the tables from which these essential elements can be deduced. The tables not only lack every essential element to aid in constructing sewers or aqueducts, but they also show a lamentable carelessness or deplorable ignorance of the most common rules in arithmetic: they have no relation to science and are not consistent with themselves or their parts. They provide for draining from 10,100 down to $38\frac{3}{4}$ acres of land, watered with one inch of rain in the hour, by sewers on a dead *level*, and by others inclined from 1 to 480 to various inclinations, and with various diameters.

The $\frac{1}{4}$ parts of an acre are probably inserted to show that with a little fractional arithmetic and 20 years of devoted labor, water may be made to run with a dead *level surface*, provided acres and fractions of acres are substituted for feet or gallons of water. To show the superior advantages of the new dead level system in creating velocity as a motor to scour and extinguish steam, they give sewers of 2, 4, and 8 feet diameter, whose areas are 3.1, 12.5, and 50.2, respectively, or whose sectional areas are as 1 to 4, and make them discharge 38. $\frac{1}{4}$, 277, and 2,850 acres of water, whose cubical contents are as 1 to 7.1, and 1 to 10.25, respectively. Additional embellishments were deemed essential to meet favor with the learned of two hemispheres; more figures and more arithmetic must adorn the columns: acres and fractional parts of acres must also be represented by equal areas "in squares of 100 feet." One acre was found by other similar tables to contain 448 instead of 435 of such squares, and hence, by the new system of water running with a dead level surface, the $\frac{1}{4}$, the $\frac{7}{16}$, the $\frac{1}{2}$, $1\frac{1}{3}$, and $1\frac{1}{4}$ acres, are shown to contain 112, 195, 224, 528, and 814 respectively, and differing precisely 3, 4, 7, 8, and 29 respectively, from the old system of arithmetic which your honorable body, at a large annual cost, are endeavoring to promulgate through the public schools of the city.

In regard to the new system or plan submitted to your honorable body, the commissioners say "the average area drained by each of the main sewers and its collateral pipe drains, is about 60 acres, (see Appendix C:)" and they add, "The capacities of these sewers are in accordance with the recent tables of Mr. Roe, (see Appendix A:)" Now both of these statements may be true, but your honorable body will fail to perceive how any system, subject, or thing, can be in accordance with any other system, subject or thing, that is not in accordance with some known science, and is not in accordance with itself or its parts. If your honorable body should proceed one step further, with much less than critical examination, you will perceive that the recent tables of Mr. Roe provide for draining $67\frac{1}{4}$ acres with a sewer only 30 inches or $2\frac{1}{2}$ feet in diameter, and not the least inclined, but on a "*level*," while the commissioners state that "the average area drained by each of the main sewers and its collateral pipe drains, is about 60 acres," with sewers of from 2 to 3 feet in diameter, and manifold inclinations from 1 in 1,714 to 1 in 54. In the diameter of the sewers and in the number of acres to be drained, there is indeed a seeming accordance, but in the *level* and the *inclinations* there is evidently a perfect discord. And now, if your honorable body should strive to make concord by joining a smooth, placid canal to the discordant inclinations, then the modest facts cannot be reconciled with the statement; because the recent tables of Mr. Roe provide for draining $67\frac{1}{4}$ acres, without a canal and without inclinations.

The commissioners offer some remarkable evidences of the supposed facts on which their new and improved system of drainage is founded. We are gravely told, "it was found by the trial works that the addition of eight junctions, each of 3 inches diameter, to a main line of only 4 inches diameter, so increased the velocity of the stream that there was no increase of its sectional area." If that statement is true—if that is a fact, an established fact—then, by every rule of every science known in London or Jersey City, 8,000 or 800,000 junctions, each of 3 inches diameter, will so increase the velocity that there will be no increase of the sectional area. Now, for convenience of computation, let us make inch the unit; allow all the sewers to remain filled to center only, and to have an initial velocity V , of 12 inches

or 1 foot per second. Then $\frac{4^2 \times .7854}{2}$ must equal s , the sectional area of main line, and $\frac{3^2 \times .7854}{2}$ must equal S , the sectional area of 3-inch junction lines. Make the eight hundred thousand junction lines equal n , and we have $\frac{n (s = 3.5343)}{(S = 6.2832)} = V = \frac{450000}{m = 5280} = 450000$ feet or 85.2272 miles per second. A formidable velocity surely; and if such a sewer, or system of sewers, should point towards the enemy's ships, there is no telling the incalculable damage which the pebble stones and brickbats floating in the current may cause to the sails and rigging.

The commissioners tell us, that "for the solution of this, facts are more valuable than theory." Our acknowledged head of lexicographers gives more than one meaning to the word "theory." In one sense it is a combination of numerous unmistakeable facts, all agreeing and showing a mathematical law, principle, or theory, that is unmistakeable, undisputed, and undisputable. In another sense it is a scheme, hypothesis, or conjecture, subsisting only in the mind. If the latter meaning was intended by the commissioners, then we can estimate the propriety of building a canal, and its force in argument, to show how Jersey City may "become a successful rival to its neighbors." The success in rivalry not being shown by any facts that conform to the old system, must remain a theory or conjecture of the mind, unless the new system of canals and sewers, founded on the new facts in the recent tables, is pointed towards our rival over the way. *Such* a system, with the enormous velocity of 85 miles per second, if continued, and well supplied with pebbles, brickbats, and balls, would, no doubt, compel the inhabitants to vacate the island of warehouses, banks, and palaces, and leave us the undisputed, the unrivaled masters. No Mordecai could stay at the gate.

There is a general lack of elements in the report to show why new facts and new systems are better than old theory. With new facts or new elements, old theory may critically and mathematically examine new systems of small drains and short canals. The commissioners state the supposed facts exist, and state they find them in the tables. "Mr. Roe," we are told, (Mr. Roe!) "finds that sewers of much smaller sections than the *usual tables* indicate, are amply sufficient." And there they leave it. No elements are given to show *why* smaller drains are "amply sufficient." But, like the poor simple Esquimaux,

"Whose soul, proud science never taught to stray
Beyond the comet's path or milky-way,"

in warmly expressing his thanks and delight for a *bonne bouche* of tallow candle, train oil, or fish entrails, says, "good! good!" without the ability to express *why* it tastes "good!" or *why* it is "good! good!"

Again, the commissioners tell us that a Mr. Lovick made "tables." That "Mr. Lovick is a surveyor, attached to the Metropolitan commission of sewers, before the General Board of Health in 1850," and that "Mr. Lovick's tabular statement *discloses the fact*." What fact? After such an array of professorships and titles, we expect some tangible facts; some elementary disclosures that were coveted, courted, coaxed, drawn, wrung from Nature's *arcana* by the stern rules of Bacon, 'y the quick, deep-grasping

mind of Kepler, or by the slow, deliberate, patient, trained, sure, far-seeing mind of Dubuat. But no such thing—no such facts. "Mr. Lovick's tabular statement discloses the fact, that the sectional area of the old drains is to the improved system as 30 to 1." Coinciding almost exactly with the number of States to the American Union; and within a very small fraction of Grimalkin's statistics on black cats and white ones.

The parliamentary committee, the board of health, the commission and commissioners, with a long retinue of professors, surveyors, architects, and pipe-makers, perhaps, had heard that facts were sometimes disclosed by experiments with Nature: that blind alchymy had disclosed some material facts for the structure, theory, or science of chemistry; that the theory or science of astronomy is built on the observed motions of matter; and that the theory or science of hydraulics is built on the observed manifold facts in the measured operations of running water. And hence, *experiment* was deemed necessary to give an air of learning or science to new systems of tables and tabular statements of sewers and aqueducts. They directed Mr. Hale to experiment, they told him to "lay down a 12-inch pipe, 560 feet long, and build a wall at the end of it, so that the whole of the sewerage water of a 5 foot 6 inch sewer should pass through it." Mr. Lovick was sent to make a "*similar experiment*" with a 15-inch pipe on the bottom of a 3 by 5 feet sewer, "inclined 1 in 153 or somewhat less." They did not know that, building a wall at the head of the pipe to pond up the water, was an element of positive destruction to every essential element in any formula for the construction of sewers. It was like making the basement or first story of a house, a grand reservoir for water, whose perpendicular hight is the sole cause of all the velocity in pipes that discharge from it. They had heard that *inclination* was, in some form an element for the construction of sewers and aqueducts, and therefore, we are told "the sewer or pipe has a fall or inclination of 1 in 118, or somewhat less, 1 in 153." It does not seem to have been even a thought of their scientific minds, that the element "*inclination*," in formulæ for constructing sewers and aqueducts, relates to the *water* only, and means the inclined *surface* of the water only.

They had heard that hydraulics related in some way to the "science of drainage;" that there were things called formulæ, by which experts could compute the inclinations, dimensions, areas, velocities, and quantities of all things relating to sewers and aqueducts, conformably to some known theory or law of Nature. They, perchance, have seen some mathematical or theoretical formulæ, with a combination of unintelligible mixtures of figures and symbols, and, from their similarity to the tables, it is inferred that formula and table are synonymous. They build sewers and aqueducts, but they find the water does not flow in the way and manner in which they understood it would flow; that the flow does not conform to the tables; and that the tables are the same theory as the formulæ. And hence, without further authority, without one element or one fact to sustain the assertion, they declare that "a careful observation of the water passing through sewers, exposed so great a difference between the theoretical area and that actually required, that a system of trial works was commenced," &c., and, "in the Croton and Cochituate aqueducts, the practical velocity was found to exceed very considerably the theoretical; that of the Cochituate, where the inclination was only 3 inches per mile, being 1 foot per second, or an increase of $\frac{1}{2}$ over $\frac{7}{8}$ of a foot, that deduced from the formula." It ap-

pears by the report, that "various formulae had been in use for a long time for calculating the areas of sewers;" but we are not told how many formulae, or what particular formula or table was used for calculating the areas of the Croton and Cochituate aqueducts. That more than one was used, we infer from the statement, that the practical velocity was found to exceed the theoretical "*very considerably*" in the Croton, and "1 foot per second, or an *increase* of $\frac{1}{3}$ over $\frac{7}{10}$ of a foot in the Cochituate." That is not a very intelligible statement of the *difference* between the two, or of the precise difference between practice, and theory or science in either case. If "*very considerably*," and if " $\frac{1}{3}$ over $\frac{7}{10}$ of a foot," both, or either of them could receive some definite mathematical value, there would still remain wanting several indispensable elements, by which to examine the degree of accuracy in the statement of precise variation between practice and theory in constructing those costly aqueducts.

The commissioners' report comes from those who profess to know the facts; from those who are presumed to know the facts; from those who, having been officially engaged on both of those important aqueducts, are presumed to speak from the *card*; to speak *ex cathedra*. Historically, we know that those who planned the structures and computed the velocities, fell short of the truth. It is also an historical fact, that the same guiding intellect that fell short of the truth in computations for the Croton, was *afterwards* employed as consulting engineer, at a large price, to compute the elements and flow of water in the Cochituate aqueduct, where, as appears by the commissioners' report now before you, the first great blunder, which amounted to something "*very considerably*," was *increased* to an amount *greater* than "*very considerably*."

If "facts are more valuable than theory;" if theory and theoretical principles are at fault; if hydraulics is an uncertain theory; if science is not science; if there is any truth in all the statements submitted by the commissioners, then it will well become your honorable body to pause before you adopt a new system of sewers and canals, involving an expenditure of half a million of dollars, and based on pretended facts that are deliberately withheld from examination. The pretended facts, if they exist, are shown to cause great waste of money. For, it appears by the new system submitted for adoption, that the same facts were used in constructing the Croton aqueduct, at large unnecessary cost in providing for more water than was wanted or expected to flow; and, with that additional experience and fact, the same intellects constructed the Cochituate, at still greater waste of money, in providing for one-third more water than was wanted or bargained for. With the same facts and same rate of increased error, we may expect to learn that one half of the money, expended more wisely, would have been ample for the intended and computed velocity and quantity of water required in the system now submitted for approval.

It is always prudent to pause before you adopt any system of sewers and canals based on the hypothesis that established theory is not science. It may be that the established theory of hydraulics is an exact science; that it is a truth, one of the eternal truths, which, when fully understood by men, is called an exact science. The supposed new facts in the London experiments and experience, submitted by the commissioners, may be errors of conception. They are erroneously planned and erroneously inferred. They are not facts; they are palpable errors, that exist only in the imagination. The theory of hydraulics is founded on well-ascertained facts; on facts that

can be weighed and measured, and is therefore a mathematical science. It is founded on facts that were coveted, coaxed, and wrung from Nature, and therefore hydraulics is a natural science. It is an exact science. It embodies a revealed truth, an eternal truth, a physical law, a law of Nature, and is, therefore, a true science. It is an error to suppose that careful observations of water passing through sewers, exposes a difference between theoretical areas and that required in practice. It is simply *not* true that the practical velocities in the Croton and Cochituate aqueducts, were found to exceed the theoretical very considerably, or any quantity equal to the ten thousandth part of a hair. Water follows the eternal law, although man erroneously computes and builds channels that do not conform to the mathematical principles of the law. Those who construct aqueducts do not always understand the law, or have not the mental ability to measure and compute its mathematical principles. It is no excuse for those who read the English language to plead ignorance of Dubuat's laws. The substance, for half a century, has been published in their mother tongue by Dr. Robison, from the original French, in the *Encyclopedie Britannica*; and by Dr. Young, in the journals of the Royal Institution in 1802, from the German of a distinguished professor, to whom Dr. Young gave the credit of discovery, but subsequently published a correction of that error in Napier's Supplement to the *Encyclopedie Britannica*. Dubuat's laws are the foundation of all that is known to man of hydraulics, as Kepler's laws are the foundation of all that is known of astronomy. There would be no science in the name *astronomy* without Kepler's laws, and there would be no science in the name *hydraulics* without Dubuat's laws. The planets cannot move, and the water cannot run without those laws.

Yours, &c.,

JUNE 7th, 1853.

C. F. DURANT.

ART. V.—COFFEE: ITS PRODUCTION AND CONSUMPTION.

COFFEE now enters so largely into the general wants of this country, as also of the world, having become a necessary of life, instead of (as prior to this century) a luxury, it may not be amiss at the present time, when the opinion seems to be abroad, that the consumption is greater than the production, to inquire into the growth of the principal producing countries, and their means of increase, to provide for the great annual increase of consumption.

Prior to 1825, Cuba, St. Domingo, British West Indies, and Java, were the chief places of production; subsequently Brazil has taken the lead, and is now the producer of nearly the half of the production. Laguira and Ceylon also export largely.

In Cuba sugar was found to pay the best profit to the planters, so that about 1825, they began to neglect coffee. The annual production in Cuba being then about sixty-five millions of pounds. At the present time the cultivation is so neglected, the annual export does not exceed twelve millions of pounds.

The export of St. Domingo has been gradually falling off, so that the average is not over forty millions of pounds per annum. This year it is but

thirty-five millions. Since the abolition of slavery in the British West Indies the production of Coffee is gradually declining, and will probably soon become extinct.

The production of Java steadily increased—being stimulated by the Dutch company and by the encouragement given to private planters,—till the export in 1848 was about 150 millions of pounds, one-third of which, or 50 millions, was private coffee. The low prices that had ruled for some time previous to 1848, and since, have so discouraged the private planters, that many have abandoned the cultivation altogether, and their annual production at present is only from twelve to fifteen millions of pounds. The Company's production has also rather fallen off, so that the average annual export of Java cannot now be estimated over 800,000 piculs, or about 110 millions of pounds.

Brazil from 1830 to 1850 increased the production of Coffee in a greater degree than ever before known. The climate was found to be most congenial to the trees, the yield per tree being double of the West Indies, and the prices of slaves extremely low—selling on long credits at from \$200 to \$300 each. During this period, the export increased from sixty-four millions per annum to three hundred millions. The low prices of Coffee subsequent to 1842, and the diminished import of blacks, checked the planting of new estates, and the entire stoppage of the slave trade in 1850, together with the subsequent rise of slaves to \$550 and \$600 each, render it nearly certain, that the production of Coffee in Brazil has about reached its maximum. The fear now is, that without some supply of labor, to make up for the annual mortality of slaves on the estates, estimated on the average at from five per cent to six per cent, the production can hardly be maintained at the present rate. Some may think that slaves will be again imported clandestinely, but the government and people are now so decidedly opposed to the further increase of the slave population, there is not the slightest probability of this.

A bill was introduced into the national legislature last year for the gradual emancipation of the slaves; it was not passed, but its numerous friends will not cease their exertions, and many years cannot elapse before its final passage and adoption. Foreign immigration has been attempted, but with little chance of success. Cooley labor has been talked of, but, as yet, none has been introduced.

Ceylon, by the encouragement of protective duties in England, increased her production of Coffee rapidly, from 1835 to 1845, and it was predicted that by 1855, the export would be fifty millions of pounds per annum. The decrease of protection and low prices have operated so unfavorably, that a great many estates have been entirely abandoned, and the production, which had reached forty millions, is now reduced to about thirty millions of pounds per annum. Large capitals have been lost, and estates abandoned for a few years cannot be reclaimed; it is therefore not likely that any increase will take place in Ceylon. The same remarks will also apply to the private planting in Java.

The export of Coffee from Laguira, &c., shows rather a falling off the past few years. Certainly no increase of importance can be expected from thence, but rather the reverse.

From the foregoing it will be seen, that there has been, in the aggregate, a falling off in the production of Coffee since 1848, when it was the greatest; and as will appear by the following tables, formed from the average of the

best authorities, that the production of 1853, which supplies the consumption of 1853-4, will be thirty-four millions of pounds less than in 1848.

It is to be observed, that many estimates of the Brazil export for 1853-4 are considerably less than 1,750,000 bags, also less from Java and Ceylon, equal in all to fifty millions pounds less than the estimate below, which would make the total falling off in production, compared with 1848, about eighty-four millions of pounds.

PRODUCTION OF COFFEE, 1848 AND 1853.

	1848.	1853.
Brazil*.....	270	380 or 1,750,000 bags.
Java	150	110 or 800,000 piculs.
St. Domingo.....	40	45
Cuba & Porto Rico.....	40	30
British West Indies	10	5
French & Dutch West Indies.....	5	3
Sumatra.....	10	15
Mocha &c.....	5	5
Manilla	3	2
Ceylon	25	30
Laguira &c.....	30	25
Costa Rica.....	.5	5
Total production	590	556

This great increase has been mainly brought about by its having ceased to be a profitable crop in most places of production, and short crops in Brazil, Java, and Ceylon. Should prices advance, some may expect a corresponding increase of production, as of sugar or cotton, but when it is considered that it requires ten years at least to get a new coffee estate into full bearing, and that labor, the chief capital employed, is from 150 to 200 per cent higher in Brazil than it has been, it cannot be looked for to any extent, certainly not equal to the average increase of consumption the past twenty-five years.

The consumption of Coffee has rapidly increased the past twenty-five years, from its low price, facilities of transportation, and ability of the masses to purchase what was formerly considered a luxury, so that it has now become a necessary of life. The greatest increase has been in the United States, averaging seven-and-a-half per cent per annum; in Europe it has been two-and-a-half per cent, or for the world four per cent per annum.

The following estimate of consumption is the average of various sources, and is believed to be as near the truth as can be ascertained, for 1852.

United States and British America	millions pounds.	200
German Zolverein		100
Austria, and other German States.....		65
Holland and Belgium.....		80
France, Switzerland, and South of Europe		110
Great Britain		35
Denmark, Sweden, and Norway		25
Russian Dominions		15
Cape of Good Hope and Australia		10
Total consumption in 1852.....		640

The difference between production and consumption has been gradually

* Rio Janerio, Santos, and Bahia.

coming round, as the stocks in Europe show a diminution of about twenty-five millions of pounds compared with the past year, which has caused an advance in prices of about fifteen per cent. In this country the stock of Rio in first hands is rather large, but of other sorts very trifling. The stocks in the interior are believed to be smaller than usual, with all the elements of a large and increasing consumption for the future.

Stock of Coffee in Europe, July 1, estimated			
at.....	millions pounds.	125	or $3\frac{1}{2}$ months consumption.
Stock in United States July 1		40	$2\frac{1}{2}$
Total stock of the world		163	

It may be well to remark that the great increase in the consumption of Coffee has taken place at the same time that tea, from its low price, has increased in a still greater degree. Should the supplies of tea be cut short by the revolution now in progress in China, the consumption of Coffee must be increased, which will render still more apparent the deficiency of production, and by the end of the year show a large decrease of the old stocks.

J. G.

July 1st, 1853.

JOURNAL OF MERCANTILE LAW.

INSURANCE.—LOSSES, OF WHICH THE NEGLIGENCE OF THE MASTER OR MARINERS IS THE EFFICIENT CAUSE, NOT WITHIN THE POLICY.

Our attention has been called, by a highly respectable merchant of Boston, to the subjoined decision of the Supreme Court of the United States, (Dec. term, 1852,) in the case of the General Mutual Insurance Company, plaintiffs in error, *vs.* Ebenezer B. Sherwood. Our correspondent has furnished us a copy of the *Monthly Law Reporter* containing this decision, and suggests that it is of sufficient importance to warrant its publication in the pages of the *Merchants' Magazine*. Our merchant correspondent, in a private note, says:—

"In consequence of this decision, the underwriters of Boston have agreed to take the risk of collision, and cover ship-owners from damages which they may be liable to pay for injuries to another ship, caused by fault or neglect of the master or mariners of the ship insured. For assuming this risk, they charge 5 per cent on the amount of the premium, whether said premium be for the voyage or term of time. Thus, when writing risks at 6 per cent per annum, they charge 3-10ths per cent for inserting the collision clause. It amounts to obtaining a bonus for recognizing a risk which, by several decisions of our State Courts, they have been held liable for."

In the Supreme Court of the United States, December Term, 1852, The General Mutual Insurance Company, plaintiffs in error, *vs.* Ebenezer B. Sherwood.

Under a marine policy insuring against the usual perils, including barratry, the underwriters are not liable to repay to the insured damages paid by him to the owners of another vessel and cargo, suffered in a collision occasioned by the negligence of the master or mariners of the vessel insured.

In error to the Circuit Court of the United States for the Southern District of New York.

Mr. Justice Curtis delivered the opinion of the court. The action was assump-
sit on a time policy of insurance, subscribed by the plaintiffs in error, upon the
brig Emily, during one year from the 17th day of October, 1843, for the sum of

eight thousand dollars, the vessel being valued at the sum of sixteen thousand dollars. The policy, described in the declaration, assumed to insure against the usual sea perils, among which is barratry of the master and mariners. The declaration avers, that during the prosecution of a voyage within the policy, while on the high seas, and near the entrance of the harbor of the city of New York, by and through the want of a proper lookout by the mate of the said brig, and by and through the erroneous order of the chief mate, who was stationed on the top-gallant forecastle of the said brig, who saw the schooner hereinafter named, and cried out to the man at the wheel, "Helm hard down—luff," whereas he ought not to have given the said order; and by and through the negligence and fault of the said brig *Emily*, the said brig ran into a schooner called the *Virginia*, and so injured her that she sank, whereby the said brig *Emily* became liable to the owners of the said schooner and her cargo to make good their damages, which liability was a charge and incumbrance on the said brig. The declaration then proceeds to aver that the brig was libelled by the owners of the schooner and her cargo, in the District Court of the United States; that a decree was there made, whereby it was adjudged, "That the collision in the pleadings mentioned, and the damages and loss incurred by the libellants in consequence thereof, occurred by the negligence or fault of the said brig; and that the libellants were entitled to recover their damages by them sustained thereby." That the same having been assessed, a decree therefor was made by the District Court, which, on appeal, was affirmed by the Circuit Court, which found, "That the hands on board the *Emily* failed to keep a proper lookout, and that the said brig might have avoided the collision by the use of proper caution, skill, and vigilance." The declaration further avers, that the plaintiff has paid divers sums of money to satisfy this decree and the expenses of making the defense, amounting to the sum of eight thousand dollars.

This statement of the substance of the declaration presents the question which has been here argued, and sufficiently shows how it arose; for although there was a demurrer to the first two counts in the declaration, and a trial upon the general issue pleaded to the other counts, and a bill of exception taken to the ruling at the trial, yet the same question is presented by each mode of trial, and that question is, whether, under a policy insuring against the usual perils, including barratry, the underwriters are liable to pay to the insured, damages paid by him to the owners of another vessel and cargo suffered in a collision occasioned by the negligence of the master or mariners of the vessel insured.

The great and increasing internal navigation of the United States, carried on over long distances through the channels of rivers and other comparatively narrow waters, where the danger of collisions and the frequency of their occurrence are much greater than on maritime voyages, renders the respective rights of underwriters and insured, growing out of such occurrences, of more moment in this than in any other civilized country; and the court has considered the inquiry presented by this case with the care which its difficulty and its importance demand.

In examining for the first time any question under a policy of insurance, it is necessary to ascertain whether the contract has received a practical construction by merchants and underwriters, not through any partial or local usages, but by the general consent of the mercantile world. Such a practical construction, when clearly apparent, is of great weight, not only because the parties to the policy may be presumed to have contracted in reference to it, but because such a practice is very high evidence of the general convenience and substantial equity of its rule. This is true of most commercial contracts; but it is especially true of a policy of insurance, which has been often declared to be an "obscure, incoherent, and very strange instrument," and "generally more informal than any other brought into a court of justice;" (per Buller, J., 4 T. R. 2, 10, Mansfield, C. J., 4 Taunt. 380; Marshal, C. J., 6 Cr. 45; Lord Mansfield, 1 Bur. 347;) but which, notwithstanding the number and variety of the interests which it embraces, and of the events by which it is affected, has been reduced to much certainty by the long practice of acute and well-informed men in commercial countries, by the

decisions of courts in America and in England, and by able writers on the subject in this and other countries.

And it should not be forgotten, that not only in the introduction of this branch of law into England by Lord Mansfield, but in its progress since, both there and here, a constant reference has been had to the usage of merchants, and the science of insurance law has been made and kept a practical and convenient system by avoiding subtle and refined reasoning, however logical it may seem to be, and looking for safe practical rules.

Now, although cases like the present must have very frequently occurred, we are not aware of any evidence that underwriters have paid such claims, or that down to the time when one somewhat resembling it was rejected by the Court of King's Bench in *De Vaux vs. Salvador*, (5 Ad. & El.,) decided in 1836, such a claim was ever made. And we believe that if skillful merchants, or underwriters, or lawyers accustomed to the practice of the commercial law, had been asked whether the insurers on one vessel were liable for damage done to another vessel not insured by the policy, by a collision occasioned by the negligence of those on board the vessel insured, they would, down to a very recent period, have answered unhesitatingly in the negative.

As we shall presently show, such, for a long time, was the opinion of the writers on insurance on the continent of Europe, and in England and America. And this alone would be strong proof of the general understanding and practice of those connected with this subject.

But although this practical interpretation of the contract is entitled to much weight, we do not consider it perfectly decisive. It may be, that by applying to the case the settled principles of the law of insurance, the loss is within the policy; and that it has not heretofore been found to be so, because an exact attention has not been given to the precise question. Or it may be that the weight of recent authority, and the propriety of rendering the commercial law as uniform as its necessities, should constrain us to adopt the rule contended for by the defendant in error. And therefore we proceed to examine the principles and authorities bearing on this question.

Upon principle, the true inquiries are—What was the loss, and what was its cause?

The loss was the existence of a lien on the vessel insured, securing a valid claim for damages, and the consequent diminution of the value of that vessel. In other words, by operation of law the owners of the *Virginia* obtained a lien on the vessel insured, as security for the payment of damages due to them for a marine tort, whereby their property was damaged.

What was the cause of this loss? We think it is correctly stated by this court in the case of the *Paragon*, (14 Peters, 109.) In that case it was said:—"In the common case of an action for damages for a tort done by the defendant, no one is accustomed to call the verdict of the jury, and the judgment of the court thereon, the cause of the loss to the defendant. It is properly attributable to the original tort which gave the right to damages consequent thereon." The cases there spoken of were claims *in personam*. But the language was used to illustrate the inquiry, What should be deemed the cause of a loss by a claim *in rem*? and is strictly applicable to such a claim. Whether the owners of the *Virginia* would proceed *in rem* or *in personam*, was at their election. It affected only their remedy. Their right, and the grounds on which it rested, and the extent of the defendant's liability, and its causes, were the same in both modes of proceeding. And in both, the cause of the loss of the defendant would be the negligence of his servants, amounting to a tort. The loss consisting in a valid claim on the vessel insured, we must look for the cause of the loss in the cause of the claim, and this is expressly averred by the declaration to have been the negligence of the servants of the assured. From the nature of the case it was absolutely necessary to make such an averment. If the declaration had stated simply a collision, and that the plaintiff had paid the damages suffered by the *Virginia* and her cargo, it would clearly have been bad on demurrer; because although it would show a loss, it would state no cause of that loss. It is only by adding the fact

that the damage done to the Virginia was caused by negligence—that is, by stating the cause of the damage—that the cause of payment appears, and, when it appears, it is seen to be the negligence of the servants of the assured.

We know of no principle of insurance law which prevents us from looking for this sole operative cause, or requires us to stop short of it in applying the maxim, *Causa proxima non remota spectatur*. The argument is, that collision being a peril of the sea, the negligence which caused that peril to occur is not to be inquired into; it lies behind the peril and is too remote. This is true when the loss was inflicted by collision, or was by law a necessary consequence of it. The underwriter cannot set up the negligence of the servants of the assured as a defense. But in this case he does not seek to go behind the cause of loss, and defend himself by showing this cause was produced by negligence. The insured himself goes behind the collision, and shows as the sole reason why he has paid the money, that the negligence of his servants compelled him to pay it. It is true that an expense attached by the law maritime to the subject insured, solely as a consequence of a peril, may be considered as proximately caused by that peril. But where the expense is attached to the vessel insured not solely in consequence of a peril, but in consequence of the misconduct of the servants of the assured, the peril *per se* is not the efficient cause of the loss, and cannot in any just sense be considered its proximate cause. In such a case the real cause is the negligence, and unless the policy can be so interpreted as to insure against all losses directly referable to the negligence of the master and mariners, such a loss is not covered by the policy. We are of opinion the policy cannot be so construed. When a peril of the sea is the proximate cause of a loss, the negligence which caused that peril is not inquired into; not because the underwriter has taken upon himself all risks arising from negligence, but because he has assumed to indemnify the insured against losses from particular perils, and the assured has not warranted that his servants will use due care to avoid them.

These views are sustained by many authorities. Mr. Arnould, in his valuable treatise on insurance, (2 vol. p. 775,) lays down the correct rule: "Where the loss is not proximately caused by the perils of the sea, but is directly referable to the negligence or misconduct of the master or other agents of the assured, not amounting to barratry, there seems little doubt that the underwriters would be thereby discharged." To this rule must be referred that class of cases, in which the misconduct of the master or mariners has either aggravated the consequences of a peril insured against, or been of itself the efficient cause of the whole loss. Thus if damage be done by a peril insured against, and the master neglects to repair that damage, and in consequence of the want of such repairs the vessel is lost, the neglect to make repairs, and not the sea damage, has been treated as the proximate cause of the loss. In the case of *Copeland vs. The N. E. Marine Ins. Co.* (2 Met. 432,) Mr. Chief Justice Shaw reviews many of the cases, and states that, "The actual cause of the loss is the want of repair for which the assured are responsible, and not the sea damage which caused the want of repair, for which it is admitted the underwriters are responsible." And the same principles were applied by Mr. Justice Story in the case of *Hazard vs. N. E. Marine Ins. Co.*, (1 Sum. R. 230,) where the loss was by worms, which got access to the vessel in consequence of her bottom being injured by stranding, which injury the master neglected to repair. So where a vessel has been lost or disabled, and the cargo saved, a loss caused by the neglect of the master to tranship, or repair his vessel and carry the cargo, cannot be recovered. *Schieflin vs. N. E. Ins. Co.* (9 John 21;) *Bradhurst vs. Col. Ins. Co.* (9 John 17;) *Am. Ins. Co. vs. Centre*, (4 Wend. 45;) *S. C.* (7 Cow. 504;) *McGaw vs. Ocean. Ins. Co.*, (23 Pick. 405.) So where condemnation of a neutral vessel was caused by resistance of search; *Robinson vs. Jones*, (8 Mass. 536;) or a loss arose from the master's negligently leaving the ship's register on shore; *Cleveland vs. Union Ins. Co.*, (8 Mass. 308.) So where a vessel was burnt by the public authorities of a place into which the master sailed with a false bill of health, having the plague on board; *Emerigon*, (by *Meredith*,) 348; in these and many other similar cases the courts, having found the efficient cause of the loss to be some neglect of duty by

the master, have held the underwriter discharged. Yet it is obvious that in all such cases one of the perils insured against fell on the vessel. And they are to be reconciled with the other rule, that a loss caused by a peril of the sea is to be borne by the underwriter, though the master did not use due care to avoid the peril, by bearing in mind that in these cases it is negligence, and not simply the peril of the sea, which is the operative cause of the loss. It may sometimes be difficult to trace this distinction, and mistakes have doubtless been made in applying it, but it is one of no small importance in the law of insurance, and cannot be disregarded without producing confusion. The two rules are in themselves consistent. Indeed, they are both but applications to different cases of the maxim, *Causa proxima non remota spectatur*. In applying this maxim, in looking for the proximate cause of the loss, if it is found to be a peril of the sea, we inquire no further; we do not look for the cause of that peril. But if the peril of the sea which operated in a given case was not of itself sufficient to occasion and did not in and by itself occasion the loss claimed; if it depended upon the cause of that peril whether the loss claimed would follow it, and therefore a particular cause of the peril is essential to be shown by the assured; then we must look beyond the peril to its cause to ascertain the efficient cause of the loss.

The case at bar presents an illustration of both rules. So far as the brig *Emily* was herself injured by the collision, the cause of the loss was the collision, which was a peril insured against, and the assured showing that his vessel suffered damage from that cause, makes a case and is entitled to recover. But he claims to recover not only for the damages done to his vessel which was insured, but for damages done to the other vessel not insured. To entitle himself to recover these, he must show not only that they were suffered by a peril of the sea, but that the underwriter is responsible for the consequences of that peril falling on a vessel not insured. It is this responsibility which is the sole basis of his claim, and to make out this responsibility he does not and cannot rest upon the occurrence of a collision; this affords no ground for his claim; he must show a particular cause for that collision; and aver that by reason of the existence of that cause the loss was suffered by him, and so the underwriter became responsible for it.

This negligence is therefore the fact without which the loss would not have been suffered by the plaintiff, and by its operation the loss is suffered by him. In the strictest sense it causes the loss to the plaintiff. The loss of the owners of the *Virginia* was occasioned by a peril of the sea, by which their vessel was injured. But nothing connects the plaintiff with that loss, or makes it his, except the negligence of his servants. Of his loss this negligence is the only efficient cause, and in the sense of the law it is the proximate cause.

The ablest writers of the continent of Europe on the subject of insurance law have distinctly declared, that in case of damage to another vessel solely through the fault of the master or mariners of the assured vessel, the damage must be repaired by him who occasioned it, and the insurer is not liable for it. Pothier, *Traite d'Assurance*, No. 49, 50; Boucher, 1500, 1501, 1502; 4 Boulay Paty, *Droit Maritime*, (ed. of 1823,) 14-16, Santayra's *Com.* 7, 223; Emerigon, (by Meredith,) 337. If the law of England is to be considered settled by the case of *De Vaux vs. Salvador*, (4 Ad. and El. 420,) it is clear such a loss could not be recovered there. Mr. Marshall is evidently of opinion, that unless the misconduct of the master and crew amounted to barratry, the loss could not be recovered, (Marsh. on *Ins.* 495.) And Mr. Phillips so states in terms, (1 Phil. on *Ins.* 636.)

It has been urged that in the case of the *Paragon*, *Peters vs. Warren Ins. Co.*, (14 Pet. 99,) this court adopted a rule which, if applied to the case at bar, would entitle the insured to recover. But we do not so consider it. It was there determined that a collision without fault was the proximate cause of that loss. Indeed, unless the operation of law, which fixed the lien, could be regarded as the cause of that loss, there was no cause but the collision, and that was a peril insured against.

We are aware that in the case of *Hall vs. Washington Ins. Co.*, (2 Story,) Mr. Justice Story took a different view of this question, and we are informed that the

Supreme Court of Massachusetts has recently decided a case in conformity with his opinion, which is not yet in print, and which we have not been able to see. But with great respect for that very eminent judge, and for that learned and able court, we think the rule we adopt is more in conformity with sound principle, as well as with the practical interpretation of the contract by underwriters and merchants, and that it is the safer and more expedient rule.

We cannot doubt that the knowledge by owners, masters, and seamen, that underwriters are responsible for all the damage done by collision with other vessels through their negligence, would tend to relax their vigilance, and materially enhance the perils, both to life and property, arising from this cause.

The judgment of the Circuit Court must be reversed, and the cause remanded, with directions to render a judgment for the defendants on the demurral to the first two counts, and award a *renewal de novo* to try the general issue pleaded to the other counts.

We append some remarks from our Boston correspondent, referred to in our introduction to the preceding decision of the Supreme Court of the United States, which was, as will be seen, delivered by Judge Curtis. The remarks of the writer, a practical merchant, are entitled to the highest respect.

The opinion of the court, delivered by Judge Curtis, at the last term at Washington, reverses the previous decisions of Judge Story of the same court, and comes in direct conflict with the decisions of the Supreme Court of Massachusetts, by which it has been held that "underwriters are liable to repay to the insured, damages paid by him to the owners of another vessel and cargo, suffered in a collision occasioned by the negligence of the master or mariners of the vessel insured."

This liability of underwriters is one which they have never been willing to acknowledge, or at least have acknowledged with reluctance; but the decisions of our State Courts have established the fact, that it was a liability which they assumed in their policies, and the underwriters of Boston have in more than one instance paid losses of the kind referred to.

Nevertheless, the Supreme Court of the United States is the highest tribunal in the land, and though its decisions do not necessarily change those of our State Courts, still its influence cannot fail to be in some degree felt; and underwriters, with the weight of such powerful opinions on their side, will be more than ever reluctant to acknowledge a liability which they have always endeavored to repudiate.

As collision is one of the most prominent perils of the sea, it would seem to be one of the risks most necessary to insure against, and the damage resulting from collision, whether to the vessel insured or to the vessel not insured, but caused by the fault of the insured vessel, which is responsible for the damages done to the other vessel, is a risk which should be covered by insurance; and if there is any doubts of this risk being covered by the policies of insurance now granted by underwriters in this country, the sooner these doubts are solved, by a modification of the terms of the policy, the greater will be the security of the ship owners.

The object of effecting insurance is generally supposed to be to protect the assured from all the ordinary losses which he is likely to meet with; and underwriters have always been content to take the risk of the negligence, carelessness, or fault of the master or mariners of vessels, when through such carelessness or fault the vessel insured was stranded, or lost, or even damaged by collision.

The distinction then that they are not liable for damages done to the vessel not insured by the one insured, through the fault of the latter, will, we fancy, hardly be recognized by merchants, for if the insured vessel is liable for such damages, it is clearly a damage to herself and her owners; and the fault of the master or mariners should be insured against in this case, and the owner protected from loss, the same as if the vessel had been carelessly stranded. If this

principle be not recognized, every one can see to what fearful losses those interested in navigation would be liable.

Valuable ships and valuable freights would be lost, and the owners, though nominally protected by insurance, might find themselves and their families reduced from affluence to poverty. The foundations, even, of commercial security would be undermined.

To underwriters the risk is a small one, but to individuals it is of great magnitude. If the former find their rates too low to cover this risk, they should raise them, but the principle should be established, and established without delay. To effect this it seems desirable that there should be a public meeting of ship owners, and that some general action should be had on the subject, that a correct understanding of the same may be arrived at, and an effort made to have policies of insurance so framed, that those interested in navigation will be protected from losses occurring by collision.

D.

ACTION TO COVER AN EXCESS OF DUTIES PAID UNDER PROTEST.

The case of *Otis Norcross vs. Philip Greeley, Jr.*, Collector of the Port of Boston, recently determined in the Circuit Court of the United States for the District of Massachusetts, is of special importance to importers. The action was brought to cover an excess of duties paid under protest by the plaintiff, upon the importation of parcels of crockery ware. The complaint is, that, in valuing the merchandise for the assessment of duties, there was added to the invoice cost, and to the other charges, a commission of $2\frac{1}{2}$ per cent; and it was decided that duties were chargeable upon the commissions, though, in fact, no commissions were paid.

The tariff act of August 30, 1842, explained by the act of March 3, 1851, provides, that the value of the article upon which the duty is to be charged shall be ascertained in a certain manner, and that "to such value or price shall be added all costs and charges except insurance, and including in every case a charge for commissions at the usual rates."

The plaintiff introduced evidence tending to prove that when the dealers here in this species of merchandise give orders to an agent of a manufacturer, or to a person established here, who is a correspondent of an English manufacturer, or send their orders themselves directly to a manufacturer, they pay no commission. But in other cases, in which the merchandise is bought in market, either for the dealers, or for the person here who undertakes to supply the dealers, a commission is paid; and in such cases $2\frac{1}{2}$ per cent is the usual rate of commission.

The plaintiff contended that the purpose of Congress was to have the value of the article, when ready to go into consumption here ascertained; that for this purpose there was to be added to its cost or value abroad the expenses of procuring and bringing it here; that if from the nature and general course of trade a charge for commissions is not usually in fact incurred, then such charge does not enter into, or constitute a part of the value of the article when ready for consumption here; and therefore to include a commission in such cases would be merely arbitrary. It was also argued that not in every case was a commission to be added, but it should be added only in those cases in which it was usual to pay a commission.

Judge Curtis, in delivering the opinion of the court, said that a direction to include in every case a charge for commissions at the usual rates, is certainly not complied with if such a charge is omitted in every case. The words, "in every case" apply to the act of including a commission as well as to the rate of that commission. The fact that the court does not perceive the propriety or practical expediency of the rule, as expressed in a revenue law, is not a sufficient reason for the rejection of this natural and obvious meaning of the language of Congress, and the adoption of a different and more restricted rule. A striking illustration of this may be seen in a recent case against the Collector at New York, decided in the United States Supreme Court. The act of March 2, 1799, sec. 59, had directed an allowance of two per cent to be made for the

leakage of liquors in casks, paying a specific duty by the gallon. The tariff act of 1846 had repealed the specific, and substituted *ad valorem* duties on all liquors. No reason could be given why the allowance should be made in the one case and not in the other. But the court held, that the deduction could not be made, although the effect was to include in the valuation, owing to usual leakage, would not go into consumption in this country.

It was therefore held by the court, that by the proper construction of this clause of the act, a commission should in all cases be added to the invoice value, although in fact no commission is paid, and although it is not customary for the importers of the article in question to pay any commission.

COMMERCIAL CHRONICLE AND REVIEW.

OPENING OF THE FALL TRADE AT BOSTON, NEW YORK, AND PHILADELPHIA—TRADE IN DOMESTIC COTTONS WITH MEXICO—DO. WITH CHINA—TOTAL FOREIGN SHIPMENTS OF PLAIN COTTONS FROM BOSTON AND NEW YORK—POSITION AND PROSPECTS OF MONETARY AFFAIRS—EFFECT OF EUROPEAN TROUBLES UPON THE PROSPERITY OF THIS COUNTRY—THE SMALL NOTE CURRENCY WITH THE MEANS OF CURTAILING IT—CONDITION OF THE BANKS OF NEW ORLEANS AND NEW YORK—STATEMENT OF THE BANKS IN TENNESSEE—PRODUCT OF GOLD IN CALIFORNIA—WITH DEPOSITS AND COINAGE AT PHILADELPHIA AND NEW ORLEANS MINTS—IMPORTS OF FOREIGN GOODS AT NEW YORK FOR JUNE—IMPORTS FROM JANUARY 1ST, AND FOR THE FISCAL YEAR ENDING JUNE 30TH—IMPORTS OF DRY GOODS FOR VARIOUS PERIODS, SHOWING A LARGE INCREASE—CASH REVENUE FOR THE FISCAL YEAR—EXPORTS FROM NEW YORK FOR THE MONTH, AND FOR THE FISCAL YEAR—SHIPMENTS OF LEADING ARTICLES OF DOMESTIC PRODUCE—PROSPECTS OF THE TRADE IN CERALS, ETC., ETC.

THE fall trade has now fairly commenced, and there is unusual activity throughout the whole length of the Union. At Boston the demand for plain cottons for the home trade has been sufficient to sustain prices, notwithstanding the falling off in the orders for export. The various channels throughout the interior had become quite bare of stock, so that a temporary lull in the foreign trade will only enable our manufacturers to bring up arrears in this particular. Since Santa Anna has assumed the reins of government in Mexico, the rate of duty on cotton goods has once more been raised to a prohibitory standard, and we may, therefore, look for a further interruption of the regular trade in that direction, and a resort to the old system of smuggling. The market there must be, however, furnished with a full year's supply of yankee cottons, since the trade, during the few brief months that the tariff was relaxed, has been very large. As a proof of this, we may mention that the clearances of domestics from New York for Mexico, during the year 1849, were only 1,920 packages; for the year 1850, 2,463 packages; for the year 1851, 820 packages; for the year 1852, 1,479 packages; while, for the first six months of 1853, they amounted to 8,031! This extraordinary quantity, comprising one-third of the whole shipments from that port for the time specified, (the total to all foreign ports from New York being 24,605 bales,) must be in advance of the demand for consumption there, and must afford a supply for some time to come. How long the interruption to the China trade will continue, cannot now be foreseen; but the shipments to the East Indies for the last six months have not been as large as for the corresponding period of the previous year, so that there can be little accumulation, beyond the probable necessities of the people. The following will show the exports of

domestics from the two principal markets for the clearance of such goods, since January 1st:—

EXPORTS OF DOMESTICS FROM BOSTON AND NEW YORK FROM JANUARY 1ST TO JULY 16TH

		Boston.	New York.
1853.....	..... packages	40,114	24,607
1852.....		42,657	29,925
1851.....		20,162	29,423
1850.....		15,114	23,858
1849.....		16,582	17,596
1848.....		27,215	32,186

At New York the demand for dry goods has become more general, and in other branches of trade, business is daily becoming more active. The Crystal Palace has attracted some buyers to that city, but its influence upon trade, thus far, has not been as great as anticipated.

At Philadelphia there has been a good early trade in domestic fabrics, but the demand for imported goods has not been larger than usual. The coal trade, however, is unusually prosperous; and this, with the comparatively high price for iron, has created unwonted activity throughout the interior of Pennsylvania.

There is increasing difficulty in introducing new enterprises requiring financial aid from either domestic or foreign capitalists, and the limit to the issue of this class of bonds would appear to be nearly reached. The works of internal improvement now in progress will, most of them, be completed, and a few connecting links may yet be undertaken; but we do not think the market, either here or abroad, will sustain any material outlay for new schemes.

The present position of commercial affairs has upset nearly all of the theories of professed political economists, and the most that the majority of them can do, is to shake their heads ominously at the future. The disastrous results which were to follow the large additions to our stock of the precious metals, are yet delayed, and the prospects of future prosperity are as bright as at any time within the past three years. The only exception to this is in the secret apprehension which always follows a long period of uninterrupted success. The tide has always turned in the past, and days of adversity, however distant, will come, say the croakers, in the end. This is undoubtedly true; the sailor knows that a favorable gale will not always blow; but instead of lying to, for this reason, under bare poles, that he may be ready for the storm, he spreads his sail while the sky is still cloudless, that he may reach port in safety. "Ills that *never happen* chiefly make us wretched," and the mercantile community have suffered more from anticipated evil than from all the reverses which have ever overtaken them. The dark clouds which hung over the affairs of Eastern Europe, while they have deranged some branches of trade, have given an impetus to others. War is always to be deprecated, but if we are not parties to the strife, our prosperity may be accelerated, not retarded by it.

Money has been in more active demand throughout the month, than for the corresponding month of either of the last three years, but the supply has been abundant at about the legal rates of interest. The coming season will witness unusual activity in monetary affairs, and it may be that higher rates of interest will generally prevail. If confidence, however, should remain undisturbed, the

large amounts of capital seeking investment, will create a competition among lenders as well as among borrowers. There has been some discussion among the newspapers in different sections of the country, as to the effect which will be produced upon the monetary interests here, by further difficulties in Europe, and the opinion has been expressed that capital would be recalled to such an extent as to create a money pressure. This opinion does not appear to us to be well grounded. Individual capital invested here, would be far safer than in Europe, and the higher rate of interest there, caused by war, would hardly be an offset against the increased risk of losing the principal. Besides, the bulk of investments held by foreigners are of such a character, that payment of them cannot be demanded at a moment's warning. Most of the bonds have many years to run before the principal is due, and the stock can only be turned into cash at the option of the buyer. In former periods of commercial revulsion, the foreign debt was mostly due on demand, and was sure to be called for when it was most inconvenient for the country to pay it.

The State of Illinois has added another to the list of States which have passed laws prohibiting the circulation of small bank bills, but we are afraid that the act will be inoperative there, as in most other northern States where it has been tried. The only effectual remedy for the restraint of this species of circulation, is to prevent its issue. As long as the banks are allowed to utter small notes, so long will the people continue to use them. A general movement on the part of the several States, prohibiting in each the issue of bank notes of a less denomination than five dollars, under a heavy penalty, would strike at once at the root of the evil. There is now sufficient metallic circulation to do away with the necessity of small notes, and they ought to be prohibited.

The bank returns from various sections of the country, show quite a difference in the comparative progress of expansion and contraction. At New Orleans there has been a falling off in nearly all the items, except the loans on stocks and mortgages, as will appear from the following statements:—

LIABILITIES.		
	June 25, 1853.	May 28, 1853.
Circulation	\$7,158,388 95	\$7,938,533 95
Deposits	10,132,172 37	11,153,818 69
Due to banks	1,180,846 13	1,276,270 31
Other cash liabilities	519,385 30	851,238 30
 Total liabilities	 \$18,990,742 75	 \$21,214,859 25
 CASH ASSETS.		
Specie.....	\$6,795,697 04	\$7,478,438 34
Loans on deposit	10,891,623 90	11,977,386 65
Foreign and domestic exchange.....	3,906,965 01	5,630,633 32
Other cash assets	1,924,000 00	1,924,000 00
 Total.....	 \$23,527,942 32	 \$27,010,478 31
Besides the banks have real estate.....	\$1,248,371 71	\$1,252,080 44
Loans in stock	5,942,800 76	5,394,965 62
Loans on Mortgages.....	4,062,957 02	3,431,942 14
Total liabilities exclusive of capital.....	26,724,186 46	28,948,302 96
Total assets	40,989,377 55	43,355,632 61

At New York there has not been any considerable expansion, although the item of specie shows a most important increase. The following, in round numbers, will give the most striking particulars: in February there were only 49 banks, now there are 52:—

	February, 1853.	June, 1853.
Deposits	\$57,000,000	\$58,000,000
Discounts	94,500,000	93,000,000
Circulation	8,800,000	9,600,000
Specie	9,000,000	12,000,000

The specie now held in the sub-treasury at New York, including the amount payable for principal and interest of United States stocks, also shows an increase of two millions of dollars, and there is a larger amount of coin in circulation, so that there has been a specie gain at that point, of over five millions of dollars.

The condition of the two principal stock banks of Tennessee, the Union and Planters', was reported on 1st July, as follows:—

Dr.	Union.	Planters'.	Cr.	Union.	Planters'.
Capital	\$1,879,264	\$1,508,800	Loans	\$1,829,343	\$1,248,569
Surplus	158,020	192,050	Bills Exchange...	985,279	1,330,134
Dividends, July, 1.	75,178	60,352	Foreign Banks...	1,005,431	1,080,077
Deposits	592,856	646,183	Specie	476,891	523,742
Circulation	1,940,117	2,190,278	Miscellaneous....	404,090	422,554
Miscellaneous....	55,599	7,413			
Total.....	\$4,701,034	\$405,0676	Total.....	\$4,701,034	\$4,605,076

The mining accounts from California continue favorable, and the product of gold from there is quite large. The following will show the deposits at the Philadelphia and New Orleans mints for the month of June:—

DEPOSITS FOR JUNE.

	New Orleans.	Philadelphia.
Gold.....	\$57,836	\$4,533,000
Silver.....	207,138	678,000
Total deposits.....	\$264,969	\$5,211,000

This is a little behind the total for June of last year, but a comparison from January 1st shows an increase during the current year, amounting to several millions of dollars. We also annex a statement of the coinage for June:—

GOLD COINAGE.

	NEW ORLEANS.	PHILADELPHIA.		
	Pieces.	Value.	Pieces.	Value.
Double eagles.....	.....	.....	26,474	\$529,480
Eagles .....	.....	.....	21,777	217,770
Half eagles .....	.....	.....	51,757	258,783
Quarter eagles .....	.....	.....	330,602	826,505
Gold dollars.....	85,000	\$85,000	172,494	172,494
Total gold coinage.....	85,000	\$85,000	603,104	\$2,005,032

SILVER COINAGE.

Half dollars .....	.....	.....	646,000	\$823,004
Quarter dollars .....	.....	.....	852,000	213,000
Dimes.....	.....	.....	740,000	74,000
Half dimes.....	.....	.....	800,000	40,000
Total silver coinage .....	.....	.....	3,038,000	\$650,004

COPPER COINAGE.

Cents .....	.....	.....	366,732	\$3,667
Total Coinage.....	85,000	\$85,000	4,007,836	\$2,658,699

In addition to the gold coinage as given above, the Philadelphia mint has struck off \$2,769,211 in gold bars, which have mostly been taken for export. The wisdom of the provision for the casting of bars or ingots, is now fully seen. It would certainly have been a wicked waste of money to coin all this mass of gold into handsomely finished eagles, and then to ship it in original packages directly to the London mint, there to be smelted up again; and yet this is what the mint has done within the last few years to the amount of upwards of thirty millions of dollars.

We showed in our last, that the imports of the country had increased to an unprecedented amount, and we now proceed to confirm it by giving some comparative totals:—

IMPORTS AT NEW YORK FROM FOREIGN PORTS FOR THE MONTH OF JUNE.

	1851.	1852.	1853.
Entered for consumption.....	\$8,047,631	\$7,626,181	\$18,590,517
Entered for warehousing.....	1,043,345	640,722	3,010,404
Free goods	668,716	1,062,947	744,909
Specie	121,234	429,747	115,021
Total entered at the port	\$9,930,926	\$9,759,597	\$17,460,851
Withdrawn from warehouse	717,633	911,479	1,181,396

The increase at New York for the month is thus shown to be \$7,701,260 as compared with last year, and \$7,529,925 as compared with the same period of 1851, a gain of more than 75 per cent. This has been swelled by the amount entered for warehousing, which has been unusually large. This brings the total increase at that port since January 1st up to \$36,540,896 as compared with the first six months of 1852, and shows an increase of \$25,447,166 as compared with the same period of 1851.

FOREIGN IMPORTS AT NEW YORK FOR SIX MONTHS, ENDING JUNE 30TH.

	1851.	1852.	1853.
Entered for consumption.....	\$58,388,193	\$47,044,912	\$76,833,164
Entered for warehousing.....	7,464,187	5,027,749	11,506,681
Free goods	5,137,644	7,344,785	8,596,616
Specie	1,399,833	1,878,181	900,062
Total imports	\$72,889,557	\$61,295,627	\$97,836,523
Withdrawn from warehouse	5,712,341	8,526,777	6,524,654

It will be seen from this that the amount entered for warehousing since January 1st, is more than double the corresponding total of last year. The previous half of the fiscal year shows a less comparative increase, the principal gain being during the last half of the year. We annex a summary for the year:—

FOREIGN IMPORTS AT NEW YORK FOR THE FISCAL YEAR ENDING JUNE 30TH.

	1851.	1852.	1853.
Entered for consumption.....	\$107,559,164	\$94,345,831	\$136,458,663
Entered for warehousing.....	14,802,824	11,466,714	15,144,573
Free goods.....	8,321,042	11,926,912	13,357,173
Specie.....	10,390,501	2,528,391	1,430,106
Total entered at the port.....	\$141,073,531	\$120,267,848	\$166,890,515
Withdrawn from warehouse.....	12,201,313	16,712,962	13,413,186

Of the increased imports as given above, about half consist of dry goods, for which there has been a good demand throughout the year. That this import has not been greatly in excess of the wants of the country, is shown by the fact that the stock in first hands is not unusually large for the season, and that prices have been very well sustained. How far this will hold true of the fall trade it is too early yet to predict, but the season has opened with the fairest prospects. The following will show the total receipts of dry goods for each of the periods specified above:—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR JUNE.

ENTERED FOR CONSUMPTION.

	1851.	1852.	1853.
Manufactures of wool.....	\$1,068,752	\$688,785	\$2,820,855
Manufactures of cotton.....	428,923	330,785	903,011
Manufactures of silk.....	1,512,986	1,011,909	2,459,230
Manufactures of flax.....	244,949	292,015	399,969
Miscellaneous dry goods.....	176,670	103,338	246,876
Total.....	\$3,432,280	\$2,426,832	\$6,329,941

WITHDRAWN FROM WAREHOUSE.

	1851.	1852.	1853.
Manufactures of wool.....	\$103,444	\$62,094	\$134,613
Manufactures of cotton.....	29,446	24,586	48,637
Manufactures of silk.....	72,562	88,132	103,650
Manufactures of flax.....	27,245	17,810	18,454
Miscellaneous dry goods.....	19,045	7,525	12,989
Total.....	\$251,742	\$199,647	\$313,343
Add entered for consumption.....	3,432,280	2,426,832	6,329,941
Total thrown on the market.....	\$3,684,022	\$2,626,479	\$6,643,284

ENTERED FOR WAREHOUSING.

	1851.	1852.	1853.
Manufactures of wool.....	\$234,916	\$105,125	\$613,264
Manufactures of cotton.....	144,811	32,565	181,817
Manufactures of silk.....	109,085	86,984	143,979
Manufactures of flax.....	23,100	19,708	20,963
Miscellaneous dry goods.....	12,345	13,022	37,182
Total.....	\$524,257	\$257,404	\$947,155
Add entered for consumption.....	3,432,280	2,426,832	6,329,941
Total entered at the port.....	\$3,956,537	\$2,684,236	\$7,277,096

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR SIX MONTHS, ENDING JUNE 30TH.

ENTERED FOR CONSUMPTION.

	1851.	1852.	1853.
Manufactures of wool.....	\$6,581,878	\$5,277,654	\$10,815,972
Manufactures of cotton.....	5,784,361	4,626,052	7,621,801
Manufactures of silk.....	11,809,492	9,168,466	15,854,541
Manufactures of flax.....	3,536,117	2,935,404	4,199,560
Miscellaneous dry goods.....	1,919,571	1,961,860	2,786,750
Total	\$29,631,419	\$23,969,436	\$41,278,624

WITHDRAWN FROM WAREHOUSE.

	1851.	1852.	1853.
Manufactures of wool.....	\$577,830	\$841,704	\$633,404
Manufactures of cotton.....	851,503	1,028,816	603,235
Manufactures of silk.....	598,217	1,251,782	775,806
Manufactures of flax.....	359,567	583,459	130,684
Miscellaneous dry goods.....	239,712	226,849	214,747
Total	\$2,621,829	\$3,932,610	\$2,857,376
Add entered for consumption	29,631,419	23,969,436	41,278,624
Total thrown on the market.....	\$32,253,248	\$27,902,046	\$43,636,000

ENTERED FOR WAREHOUSING.

	1851.	1852.	1853.
Manufactures of wool.....	\$823,974	\$788,560	\$1,380,466
Manufactures of cotton.....	908,665	568,638	742,071
Manufactures of silk.....	970,122	1,521,494	970,757
Manufactures of flax.....	345,661	207,480	181,267
Miscellaneous dry goods.....	202,425	200,989	241,791
Total	\$3,250,847	\$3,287,161	\$3,516,342
Add entered for consumption	29,631,419	23,969,436	41,278,624
Total entered at the port.....	\$32,882,266	\$27,256,597	\$44,794,966

IMPORTS OF DRY GOODS AT THE PORT OF NEW YORK DURING THE FISCAL YEAR ENDING JUNE 30TH.

ENTERED FOR CONSUMPTION.

	1851.	1852.	1853.
Manufactures of wool.....	\$14,950,011	\$12,054,269	\$20,351,957
Manufactures of cotton.....	9,771,100	8,460,116	18,018,164
Manufactures of silk.....	23,077,269	19,161,253	27,512,722
Manufactures of flax.....	6,372,102	5,521,293	7,568,161
Miscellaneous dry goods.....	3,592,670	3,665,527	5,085,598
Total	\$57,763,152	\$48,862,158	\$73,537,802

WITHDRAWN FROM WAREHOUSE.

	1851.	1852.	1853.
Manufactures of wool.....	\$2,024,636	\$2,157,409	\$1,429,076
Manufactures of cotton.....	1,432,810	1,586,823	990,760
Manufactures of silk.....	1,181,048	2,342,742	1,441,580
Manufactures of flax.....	595,067	851,704	346,357
Miscellaneous dry goods.....	366,201	474,362	381,175
Total	\$5,599,262	\$7,413,040	\$4,588,948
Add entered for consumption.....	57,763,152	48,862,158	73,537,802
Total thrown on the market.....	\$63,362,414	\$56,275,198	\$78,126,250

ENTERED FOR WAREHOUSING.

	1851.	1852.	1853.
Manufactures of wool.....	\$2,117,020	\$2,334,296	\$1,954,508
Manufactures of cotton	1,900,400	1,522,431	1,274,363
Manufactures of silk.....	1,781,581	3,158,698	1,576,505
Manufactures of flax.....	686,629	824,966	356,999
Miscellaneous dry goods	364,965	518,513	492,836
 Total	 \$6,850,595	 \$8,358,904	 \$5,655,211
Add entered for consumption.....	57,763,152	48,862,158	73,537,302
 Total entered at the port	 \$64,613,747	 \$57,221,062	 \$79,192,513

The total gain in the receipts of dry goods for the year over the previous year, it will be seen, is \$21,971,451, of which \$17,538,369 occurred during the last six months. The increase, as compared with 1851, is \$14,578,766, of which \$11,912,700 occurred during the last half of the year.

We also annex a comparative statement of the cash revenue at the same port, which has of course largely increased:—

CASH DUTIES RECEIVED AT NEW YORK.

Year.	June.	Six months ending June 30.	Year ending June 30.
1853.....	\$8,840,723 53	\$21,167,329 50	\$38,249,754 43
1852.....	2,230,680 23	14,250,312 88	28,678,910 36
1851.....	2,305,185 62	16,652,665 60	31,670,195 29
1850.....	1,504,683 76	13,029,910 05	24,487,609 73

The exports of the country have increased almost as rapidly as the imports, although not as large a proportion has cleared from the same port:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JUNE.

	1851.	1852.	1853.
Domestic produce.....	\$3,778,289	\$3,566,369	\$5,057,229
Foreign merchandise (free)	56,435	125,500	109,668
Foreign merchandise (dutiable)	265,290	482,594	394,043
Specie	6,462,387	3,558,355	3,264,282
 Total	 \$10,562,381	 \$7,730,818	 \$8,825,222
Total, exclusive of specie	4,100,014	4,174,463	5,560,940

The increase for the month has been comparatively large, but for the previous six months the same proportion has not been maintained:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SIX MONTHS ENDING JUNE 30TH.

	1851.	1852.	1853.
Domestic produce	\$22,456,839	\$22,145,821	\$25,422,290
Foreign merchandise (free)	371,345	521,219	697,477
Foreign merchandise (dutiable).....	1,981,742	2,419,575	2,040,980
Specie	19,093,515	12,624,009	8,654,982
 Total exports	 \$43,908,441	 \$37,710,624	 \$36,815,729
Total exclusive of specie	24,709,926	25,086,615	28,160,747

For the year the increase in shipments of produce is about \$5,000,000. The falling off in the exports of specie shows that shipments from other ports have been at a much heavier ratio:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE FISCAL YEAR ENDING JUNE 30TH.

	1851.	1852.	1853.
Domestic produce.....	\$47,496,978	\$38,853,757	\$43,993,250
Foreign merchandise (free).....	482,655	871,687	1,058,209
Foreign merchandise (dutiable).....	5,624,848	4,461,885	4,450,027
Specie.....	26,622,781	37,273,703	21,127,228
Total.....	\$80,227,207	\$81,461,082	\$70,628,714
Total, exclusive of specie.	53,604,476	44,187,329	49,501,486

We have not yet received the total for the month of July, but enough is known to show a larger ratio of increase than has been witnessed for several years. We annex a summary of the shipments of some of the leading articles of domestic produce from January 1st to July 16th:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS OF CERTAIN LEADING ARTICLES OF DOMESTIC PRODUCE, FROM JANUARY 1ST TO JULY 16TH.

	1852.	1853.	1852.	1853.
Ashes—pots....bbls.	9,577	5,982	Naval stores....bbls.	230,818 241,644
pearls.....	425	470	Oils, whale....galls.	30,246 215,484
Beeswax.....lbs.	147,790	120,759	sperm.....	291,622 527,752
<i>Breadstuffs—</i>			lard.....	18,495 39,587
Wheat flour .. bbls.	671,547	758,588	linseed	7,791 5,518
Rye flour.....	7,040	1,228	<i>Provisions—</i>	
Corn meal.....	26,825	25,492	Pork.....bbls.	21,457 41,187
Wheat .....bush.	761,021	1,580,079	Beef.....	30,774 31,936
Rye.....	236,460	.....	Cut meats ....lbs.	1,145,406 6,003,193
Oats.....	5,288	33,908	Butter.....	362,215 947,122
Barley.....	347	.....	Cheese	466,528 2,293,195
Corn	620,377	584,233	Lard	2,038,177 4,265,866
Candles, mold. ....boxes	37,209	31,809	Rice	trcs. 21,509 9,063
sperm.....	2,403	2,952	Tallow.....lbs.	260,719 1,759,055
Coal	17,897	18,823	Tobacco, crude...pkgs.	13,305 11,688
Cotton	262,132	172,029	Do., manufactured....lbs.	2,109,474 3,437,932
Hay	6,189	3,096	Whalebone.....	443,535 2,043,646
Hops.....	457	261		

There is every probability that the increased trade in breadstuffs, as shown above, will be still farther increased during the remaining summer and fall months. The difficulties in Eastern Europe have already broken up, for the time being, the trade in the Black Sea, and the stock of cereals in Great Britain and on the Continent is confessedly limited, while the growing crops are more or less injured. Should the present troubles end in a general European war, there would not only be a brisk demand for our breadstuffs, but also for American shipping, as neutral vessels would always be preferred in the carrying trade. It is true that the Russian navy would not, probably, be sufficiently scattered to render the navigation of the ocean by either French or English merchantmen a matter of very great peril, but the rate of insurance by such vessels would necessarily be considerably increased above the rate by American bottoms. There can be no question about our ability to supply a large export demand for breadstuffs; the granaries of the country are now far from being empty, and the incoming crop is one of the largest ever harvested. Flour has been, throughout the last season, one of the cheapest articles of food in the country, and a demand which should raise the price two or three dollars above the average for the past six months, would not lead to any distressing results.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

DEBT AND CREDIT OF THE COUNTRY.

E. D. MANSFIELD, Esq., the editor of the *Railroad Record*, and a reliable statistical writer, has compiled the subjoined information relative to the debt and credit of the country.

1st. OF DEBT. The debts of the nation may be divided into six different classes, viz: the National Debt, the State Debts, the Municipal Debts, the Railroad Debts, the Mercantile Debts, and the Private Debts.

The National Debt is the first, and on the first of December, 1852, amounted, according to the annual treasury report, to \$65,131,692.

The State Debts, (according to the *American Almanac* for 1853,) were, in total, \$202,557,762. The largest amount of Debt in the several States were as follows:—

Pennsylvania.....	\$40,114,236	Louisiana	\$11,492,566
New York	22,623,838	Mississippi	7,271,707
Virginia	17,575,629	Indiana.....	6,907,477
Ohio	17,339,216	Alabama.....	6,742,339
Illinois	16,627,509	Massachusetts	6,301,030
Maryland.....	15,260,670	Kentucky	5,726,208
Texas	12,436,991		

Four States only, Vermont, Delaware, Florida, and Wisconsin, have no public debt.

The next form of debt is that of Municipal Corporations. The following is an approximate table of municipal debts, but as it is impossible to ascertain all the municipalities which have incurred debt, and the amount of it, it is obviously too small. Some of the following amounts may have been diminished; but it is certain more has been added in other places:—

Bangor, Me.....	\$150,000	Charleston.....	\$1,000,000
Portland, Me	200,000	Savannah	2,675,000
Lowell, Mass	146,150	St. Louis	2,400,000
Boston, Mass	1,518,700	Milwaukee, Wis	200,000
Providence, R. I	218,970	Nashville, Tenn	1,000,000
Hartford, Conn	37,000	Covington, Ky	200,000
Albany, N. Y.....	435,732	Peoria, Ill	75,000
New York	14,790,424	Oquawka, Ill	25,000
Philadelphia.....	8,150,000	Janesville, Wis.....	50,000
Pittsburg and Allegheny Co.	3,450,000	Marietta, Ohio	100,000
Baltimore, Md	7,830,000	Columbus, Ohio	200,000
New Orleans	3,500,000		
Cincinnati.....	2,840,000	City debts.....	\$53,391,976
Chillicothe	50,000	Counties of the Western St's.	10,000,000
Louisville	1,500,000		
Memphis.....	650,000	Municipal debts.....	\$68,391,976

The above may be regarded rather as samples than aggregate of the whole. The total debt of municipal corporations probably amounts to \$70,000,000. Several of the above cities and towns probably owe more than is set down to them, and there are others not included in the list. Seventy millions, however, will very nearly cover the Municipal Debts of the United States. The heavy debt of New York city was incurred chiefly for the Croton Water Works. More than half the total debt, however, has been made to aid railroads.

The Railroad Debt is the next class. For this we have some data. The report of the State Engineer of New York, for 1852, shows that the principal railroad lines of New York cost, in round numbers, eighty millions of dollars, and that of this sum, about forty millions, or one-half, existed in the form of debt. The total cost of railroads in the United States, up to the year 1852, including those not finished, was not less than five hundred millions of dollars. In New England, the debt on railroads is less than in New York; but in the West and Southwest it is greater. On the whole,

it may be assumed that one-half the cost of American railways exists in debt. Two hundred and fifty millions, at least, is the total of railway debts.

We next proceed to the Mercantile Debt of the country; and here we meet with a great difficulty. A bond exists only between two parties. But the same sum may be in debt among mercantile parties ten times over. Thus: A B imports foreign goods to the amount of \$100,000, and sells to X, Y, Z, W, each \$25,000. X, Y, Z, W, jobbers, sell to M, N, O, P, Q, country retailers, \$5,000. The result is, (if the goods are transferred on credit,) that twenty retailers owe four jobbers for the same goods, which the four jobbers owe one importer, and for which he again owes the foreign manufacturer. But, in this instance, we will suppose only one debt for the same thing; for we are aiming first to show the debts of the country. The average importation of foreign goods is two hundred millions, mostly on six months credit. We will suppose one fourth to be paid in cash. One hundred and fifty millions express the Mercantile Debt of the country; a debt which is constantly in the process of being paid, but which is always being renewed.

We come now to the Private or Domestic Debt of the country, and here we may say that the same amount of mercantile debt above mentioned is to be repeated, for it is now renewed in the shape of credits to the retail merchants. But there are two classes of debts remaining which are exceedingly difficult to arrive at. These are debts between individuals, and debts on bond and mortgage. But we still have some data.

We have first the bank discounts, and next, in some States, the returns of money at interest. These two will include nine-tenths of the whole individual debt. But we must premise that nearly the whole mercantile debt above mentioned must be taken out of the bank discounts, before we get at the private loans. For it is the banks that supply merchants with the means of giving credit. The total of bank discounts is about four hundred and fifty millions. From this we deduct three hundred millions, the mercantile debts of importers, and the domestic debt of the retailers. There remains one hundred and fifty millions as the private debts of individuals to banks. Of money at interest and book accounts, there is in the State of Ohio about eight per cent of the whole amount of property. That is, however, only a balance after deducting the debts of the individual from his credits. If, however, we suppose in the whole United States to be deducted the private debts of individuals for merchandise, which equals the amount of retailers' credits, (one hundred and fifty millions,) and the residue of bank discounts of merchants, (three hundred millions,) then the total amount of individual accounts and money at interest, (including bonds and mortgages,) will be that sum at eight per cent on the property of the United States added.

The above sum (for deduction) is four hundred and fifty millions, and eight per cent on the assessed property of the country is four hundred and eighty millions. The total private or individual debts of the country, then, is nine hundred and thirty millions. This is the debt which exists between men all over the country, and exists by the process of buying and selling.

We have now approximated the aggregate of debts existing in various forms in the nation, and among the States, municipalities, railroads, merchants, and individuals of this country. It will be seen that the private, individual debts among the people, are at last, the great mass of the whole. This will not appear strange at all to any one who casts his eye around society, and observes the continual transfer of property, most of which is transferred on credit. Within the last year, for example, immense bodies of real estate have been transferred, and three-fourths of the whole purchase money lies on credit. So also a bale of dry goods has been transferred on credit till it has created a debt four times its value. It is this extension of private and commercial credit which so immensely extends the debt of the country. Let us now aggregate these debts, and see in what proportion they exist. The following is a summary of debts:—

National Debt	\$65,131,792
State Debts	202,557,762
Municipal Debts.....	70,000,000
Railroad Debts.....	250,000,000
Mercantile Foreign Debt	150,000,000
Private Domestic Debt.....	930,000,000
Aggregate.....	\$1,667,689,454

Of this debt, about five hundred millions is held abroad, or on foreign account. The residue, making nearly twelve hundred millions, is held among the citizens of the country. It is obvious, from this state of fact, that the solvency of the country depends on the solvency of merchants and individuals. It is private credit which at last sustains the whole fabric. The \$250,000,000 of railroad bonds will be easily paid, and double as much more, if the individuals who have subscribed railroad stocks can make good their subscriptions in cash. It is undoubtedly true, however, that a great deal of railroad stock has been subscribed on the idea that money can be borrowed, lands sold, and property realized at advanced prices. A rising market, increased supplies of gold, and a prudent conduct of business, will enable stockholders to pay their subscriptions; but it is evident that in the extension of credits now apparent, there must be great prudence in the conduct of business. "Make haste slowly," is an ancient maxim which contains much practical wisdom.

We have seen no attempt (and ours is only an attempt,) at solving the problem of general indebtedness, which we have undertaken above. We believe that the first five classes of debt described above, are very nearly correct. The last is the one which presents the greatest difficulty, and we can only say as to that, we have not overrated it.

If the above statement be correct, the entire indebtedness of the country is about 20 per cent on the entire value of property in the nation.

RESOURCES AND LIABILITIES OF THE BANKS IN CONNECTICUT.

We give below an abstract from the Bank Commissioners' Reports for each of the last 17 years—that is, from 1837 to 1853, inclusive:—

ABSTRACT FROM THE BANK COMMISSIONERS' REPORTS FOR THE LAST SEVENTEEN YEARS.

Years.	Capital.	Circulation.	Total liabilities.	Specie.	Loans and discounts.	Total resources.
1837.....	\$8,744,697	\$3,998,325	\$15,715,964	\$415,386	\$13,246,945	\$15,691,285
1838.....	8,754,467	1,920,552	12,302,631	535,447	9,769,286	12,293,372
1839.....	8,832,223	3,387,815	14,942,779	502,180	12,286,946	14,942,779
1840.....	8,878,245	2,825,589	12,950,572	499,032	10,428,630	12,950,512
1841.....	8,873,927	2,784,721	13,866,373	454,298	10,944,673	13,866,273
1842.....	8,876,817	2,555,638	13,465,052	471,238	10,683,413	13,465,052
1843.....	8,580,393	2,379,947	12,914,124	438,752	9,798,392	12,914,124
1844.....	8,292,238	3,490,963	14,472,681	455,430	10,842,955	14,472,681
1845.....	8,359,748	4,102,444	15,243,235	453,658	12,447,196	15,243,235
1846.....	8,475,630	4,565,947	15,892,685	481,367	13,032,600	15,892,685
1847.....	8,605,742	4,437,631	15,784,772	462,165	12,781,857	15,784,772
1848.....	8,726,381	4,891,265	16,808,829	517,700	13,424,653	16,808,829
1849.....	8,985,916	4,511,571	16,947,002	575,676	13,740,591	16,947,002
1850.....	9,907,503	5,253,884	19,122,209	640,622	15,607,314	19,122,209
1851.....	10,575,657	6,639,834	21,999,949	774,861	18,190,512	21,999,949
1852.....	12,509,507	7,118,625	25,226,502	825,379	20,552,493	25,226,502
1853.....	13,950,944	11,217,630	32,098,899	1,259,872	25,833,850	32,098,899

From the foregoing tables it will be seen that there are fifty-five banks in the State, including five organized under the General Banking Law of 1852, with an aggregate capital of \$13,950,944 50
Aggregate Surplus Fund..... 1,182,953 88
Aggregate Deposits, April 1, 1853..... 4,421,667 93

Total..... \$19,555,566 31

upon which the circulation of the banks of the State is predicated.

The Bank Commissioners, who have personally visited and examined all the banks in the State, in accordance with the requirement of the statute, believe them to be in a sound condition; and, though the failure of the Eastern and Woodbury banks caused, for time, suspicion to rest upon them, the trying time has passed, and we trust that general confidence is restored, and that they will again resume that high standing which they have so long and deservedly maintained.

In addition to the quarterly returns, the commissioners obtained from the books of

the banks, on or about the 1st of November, 1852, a statement of their condition at that time, in regard to the items embraced in the following table:—

Banks.	Loans and discounts.	Circulation.	Specie.	Circulat'n protected.
Bank of North America.....	\$254,509 06	\$166,000	\$17,634 00	\$20,000
Bridgeport.....	398,820 00	239,640	20,585 12	20,000
Connecticut.....	422,918 45	245,000	22,179 00	25,000
City, New Haven.....	900,302 02	475,351	46,432 14	147,000
City, Hartford.....	1,042,307 56	605,912	64,286 27	200,000
Conn. River Banking Co.....	540,386 27	251,500	25,400 00	40,000
Central.....	225,642 40	65,000	6,433 52	25,000
Danbury.....	175,077 10	69,581	7,291 00	.....
Deep River.....	153,784 19	95,500	9,929 72	.....
East Haddam.....	144,836 62	66,563	8,965 01	.....
Exchange.....	1,284,000 00	574,000	60,000 00	20,000
Fairfield County.....	449,577 98	250,000	19,800 00	.....
Farmers'.....	525,799 48	308,800	22,900 00	.....
Farmers' and Mechanics'.....	1,444,594 00	572,418	51,412 53	30,000
Hartford.....	2,360,843 59	895,315	91,593 03	246,500
Hatters'.....	135,505 86	60,830	5,702 79	.....
Iron.....	256,621 87	148,026	14,108 00	.....
Jewett City.....	55,107 88	31,824	4,996 71	.....
Manufacturers'.....	380,648 93	170,770	14,569 47	50,000
Mechanics'.....	585,561 41	151,989	16,724 53	.....
Merchants' Norwich.....	373,746 63	63,000	6,200 00	.....
Merchants', New Haven.....	705,205 72	226,104	19,697 23	15,000
Middlesex County.....	488,438 82	111,206	11,693 03	.....
Middletown.....	574,020 67	150,044	16,624 89	.....
Meriden.....	382,315 00	113,600	13,341 00	20,000
Mystic.....	86,099 29	26,914	3,152 00	.....
Mystic River.....	149,811 32	65,967	9,436 65	.....
New London.....	201,611 23	52,200	5,699 30	.....
New Haven.....	600,130 00	147,219	17,183 00	.....
New Haven County.....	818,057 87	427,742	42,900 00	30,000
Norwich.....	382,457 00	69,000	8,600 00	.....
Ocean.....	187,723 76	171,591	13,929 25	115,000
Pawcatuck.....	112,197 52	32,653	4,100 00	.....
Phoenix and Branch.....	2,412,088 42	870,753	91,284 62	75,000
Pequonnock.....	381,396 01	253,000	16,100 00	44,500
Quinebant.....	414,621 68	128,827	8,106 92	.....
Saybrook.....	208,823 46	137,598	19,842 38	.....
Southport.....	218,572 81	120,000	12,566 06	.....
State.....	1,194,066 00	635,540	64,000 00	175,000
Stamford.....	205,699 92	131,969	13,357 37	.....
Stonington.....	105,503 40	38,594	5,722 10	.....
Thames.....	491,091 00	131,392	14,425 79	.....
Thompson.....	98,324 04	43,000	5,167 82	.....
Tolland County.....	193,833 66	80,000	13,229 00	.....
Union.....	168,494 51	98,000	9,599 88	.....
Waterbury.....	792,428 26	268,493	26,117 21	55,000
Windham.....	115,785 03	57,689	6,400 00	.....
Windham County.....	117,976 23	56,939	5,532 40	.....
Winsted.....	297,813 24	131,942	14,689 64	.....
Whaling.....	216,921 94	65,000	6,200 00	.....
	24,520,098 21	10,347,945	1,015,839 38	1,353,000

At that time the loans and discounts, and the circulation of the banks of the State, were higher than they had ever been before, but they have since been considerably increased.

CIRCULATION.

The great demand for Connecticut currency at the West, within the last few years, has had the effect to introduce a new feature into the banking business of the State.

The Commissioners allude to the practice of loaning to parties the bills of the banks, at rates varying from three to six per cent per annum, the borrower guarantying their redemption in the same manner as if they were his own obligations. The bills so loaned are marked in such a way that they are readily detected at the counter of the bank, and at once returned to the borrower, who redeems them. This is called "protected circulation," and amounted in November last to \$1,353,000. It is believed to be far above this sum at the present time.

It must be apparent that this system cannot be called legitimate banking. It places the bank resorting to it in a critical condition in case the borrowing party fails to redeem, according to the terms of his contract, and a large amount of their circulation is thrown back upon them at a time when they are not prepared to meet it. Such a case has occurred within a limited period, and had it not been that the collateral security held by the bank was of such a nature that it was immediately convertible into cash, their embarrassment would have been severe, especially as the circumstance occurred at the time of the failure of the Eastern and Woodbury Banks, when an unusually large amount of their ordinary circulation was returned for redemption. As it was, their credit received a shock from which it has not yet entirely recovered.

The system of protected loans and issuing on deposits, has given the banks facilities for making large dividends. And for the past few years investments in bank stocks have been so profitable as to induce almost every capitalist to purchase such stocks at large premiums, and to withdraw all loans upon other safe securities, where the legal rates only were obtained. Thus every business man is at the present time compelled to borrow of banks, when formerly loans were obtained from individuals. And it may be questioned whether the general interest and prosperity of the State is not injured by the absorption of so large an amount of capital, which, if invested in the various industrial pursuits, would be productive of more real wealth and general prosperity.

The power given to banks by their charters, of maintaining a circulation equal to "fifty per cent over and above the amount of capital stock actually paid in, and the moneys deposited for safe keeping," we would suggest should be modified so as to deprive them of issuing upon the strength of their deposits. Deposits are indebtedness. Circulation is also indebtedness. Thus, to maintain a circulation upon deposits is simply to build up one species of indebtedness upon the basis of another—a proposition which cannot recommend itself to our approbation. The fact that only three banks in the State have resorted to their deposits as a basis for circulation, would indicate that no more fitting time than the present could be fixed upon to put a stop to the system.

POSITION OF THE BANKS OF ENGLAND AND FRANCE IN 1852-3.

As great interest attaches just now to the late changes and actual position of the Banks of England and France, we subjoin a detailed statement of the more important variations which have taken place in the two establishments, since the beginning of September, 1852, when the drain upon both appears to have commenced. The returns of the Bank of England include the payment of the half-yearly dividends in the English funds. It will be observed, that the position of the Bank of France has undergone serious alterations within the last few months, and that the future returns of this establishment must be watched with increased attention. The Bank of England has, simultaneously, suffered a diminution of resources, but in a far smaller proportion, and chiefly for the legitimate purposes of Commerce. The metallic reserves of both establishments, it will be observed, were nearly equal, which is a singular coincidence.

BANK OF ENGLAND.

	Sept. 11.	Oct. 9.	Nov. 5.	Jan. 15.
Notes in circulation	£22,086,375	£22,242,185	£23,351,145	£23,663,370
Bullion.....	21,893,644	21,718,018	20,895,420	19,148,507
Other or private securities.....	11,116,843	12,483,509	11,362,535	14,157,548
	Increase.	Decrease.	Increase.	Decrease.
Notes in circulation.....	£1,574,995	.....	7 per cent	..
Bullion .....	.....	£2,745,187	..	13 per cent
Other or private securities	3,040,705	.....	27 per cent	..

	BANK OF FRANCE.			
	Sept. 9. Fr.	Oct. 14. Fr.	Nov. 11. Fr.	Jan. 13. Fr.
Bank notes in circulation....	615,616,250	634,953,950	661,654,150	686,048,975
Cash and bullion in hand....	609,104,254	585,917,795	548,939,598	482,430,759
Bills discounted.....	188,769,467	214,122,197	244,914,635	316,823,383
Advanced on securities.....	38,363,153	37,536,280	70,393,984	76,683,986
Advanced on railways.....	29,520,089	36,873,994	53,885,218	69,819,066
	Increase. Fr.	Decrease. Fr.	Increase. Fr.	Decrease. Fr.
Bank notes in circulation....	70,432,725	.....	11½ per cent	..
Cash and bullion in hand....		126,673,495	..	21 per cent
Bills discounted.....	128,053,916	.....	68 per cent	..
Advanced on Securities.....	38,320,833	.....	100 "	..
Advanced on railways.....	40,298,977	.....	130 "	..

CONDITION OF THE BANKS OF NEW ORLEANS.

STATEMENT OF THE BANKS IN NEW ORLEANS ON THE 26TH OF JUNE, 1853.

MOVEMENT OF THE BANKS.

	Cash liabilities.		Cash assets.	
	Circulation.	Total.	Specie.	Total.
Specie-paying.				
Canal Bank	\$2,257,687	\$4,374,879	\$1,820,652	\$5,004,770
Louisiana Bank	2,060,364	6,257,327	2,200,822	8,278,290
Louisiana State Bank	2,062,580	7,455,601	2,764,003	8,558,763
Mechanics' and Traders Bank	539,735	820,313	75,623	940,953
Union Bank	25,490	64,239	95,073	114,451
Non-specie paying.				
Citizens' Bank	5,988	9,656	108,922	400,113
Consolidated	6,495	8,727	30,602	30,602
	\$7,158,339	\$18,990,743	\$6,795,697	\$28,327,942

TOTAL MOVEMENT AND DEAD WEIGHT.

	Liabilities, Exclusive of capital.		Assets.
Specie-paying.			
Canal and Banking Company.....	\$4,374,879	46	\$9,379,649 71
Louisiana Bank	6,257,327	04	11,411,779 07
Louisiana State Bank.....	7,445,601	36	9,759,849 49
Mechanics' and Traders' Bank.....	820,312	65	1,216,157 50
Union Bank	64,239	20	1,209,502 00
Non-specie paying.			
Citizens' Bank.....	6,244,478	55	6,713,596 74
Consolidated Association	1,507,348	21	1,298,843 04
	\$26,724,186	46	\$40,989,377
			55

BANKING SYSTEM OF NEW HAMPSHIRE.

The Governor of New Hampshire, in his last annual Message to the Legislature of that State, thus refers to the condition and character of the Banks:—

"The present Banking system of the State is sound and popular. The Banks of deposit, discount, and circulation, to the number of thirty-three, with an aggregate capital of \$3,226,000, all paid in, are in the hands of honest, responsible, and accommodating financiers, rendering them safe to the public and remunerative to the stock-holders. They are well distributed to the different sections of the State, and so located as to accommodate the business operations of the community. Their stocks are diffused among all avocations, individuals holding but small quantities, the policy being to have all interested in them who have money capital more than they require in their ordinary business, even if but small in amount. The Savings Institutions, or

Banks of Deposit and Loan, are sixteen in number, and have an aggregate capital of \$2,182,218. The management of these institutions is judicious, as far as can be ascertained from the reports of the bank commissioners; they seem to be confided to good hands, and are performing their important functions with a steadiness and fidelity which entitle them to the undoubting confidence of the depositors. It will be perceived from the foregoing, that in our business operations we have money capital through our banks, to the amount of \$5,358,212, by which to aid credit and facilitate exchanges, and to this might be properly added the average deposits in our banks of deposit, discount, and circulation.

GOLD COINED IN ENGLAND, FRANCE, AND UNITED STATES.

[From the Belfast Statistical Journal.]

GOLD COINED IN THE UNITED KINGDOM IN THE 50 YEARS ENDING 1850.

		Yearly Average.
In the 1st period of 40 years, ending 1840.....	£64,418,461	£1,610,461
" 2d " 7 " 1847.....	30,264,929	4,232,561
" 3d " 3 " 1850.....	6,121,790	2,040,596
<hr/>		£100,805,180

SILVER COINED IN THE UNITED KINGDOM IN THE 50 YEARS ENDING 1850.

		£280,052
In the 1st period of 40 years, ending 1840.....	£11,203,215	
" 2d " 7 " 1847.....	3,413,941	864,518
" 3d " 3 " 1850.....	1,254,394	94,710
<hr/>		£15,871,550

GOLD COINED IN THE UNITED STATES IN THE 50 YEARS ENDING 1850.

		£141,183
In the 1st period of 40 years, ending 1840.....	£5,647,328	
" 2d " 7 " 1847.....	8,158,316	1,165,188
" 3d " 3 " 1850.....	9,824,577	3,108,192
<hr/>		£23,130,221

SILVER COINED IN THE UNITED STATES IN THE 50 YEARS ENDING 1850.

		£280,080
In the 1st period of 40 years, ending 1840.....	£11,203,215	
" 2d " 7 " 1847.....	3,413,941	487,705
" 3d " 3 " 1850.....	1,254,394	418,131
<hr/>		£15,871,550

GOLD COINED IN FRANCE IN THE 50 YEARS ENDING 1850.

		£1,085,653
In the 1st period of 40 years, ending 1840.....	£43,134,156	
" 2d " 7 " 1847.....	3,500,000	500,000
" 3d " 3 " 1850.....	5,726,526	1,908,841
<hr/>		£53,660,682

SILVER COINED IN FRANCE IN THE 50 YEARS ENDING 1850.

		£3,187,500
In the 1st period of 40 years, ending 1840.....	£125,000,000	
" 2d " 7 " 1847.....	8,600,000	1,228,571
" 3d " 3 " 1850.....	15,622,895	5,207,631
<hr/>		£149,722,895

SUMMARY OF GOLD AND SILVER COINAGE IN THE 50 YEARS ENDING 1850.

Gold.		Silver.
United Kingdom.....	£100,805,180	United Kingdom..... £14,058,855
United States.....	23,180,231	United States..... 15,871,550
France (equal to £3,531,921 per annum).....	52,660,682	France (equal to £3,572,862 per annum)..... 149,722,885

LIFE INSURANCE IN ENGLAND.

The readers of the *Merchants' Magazine* will perceive, from the following extracts from a late number of the *London Economist*, that the subject of Life Insurance is attracting some attention in the British Parliament:—

"The motion which we announced a fortnight ago, for a committee to inquire into the present condition of Life Assurance Associations, was submitted to the House of Commons on Tuesday, and was acquiesced in with very general approbation. Only one honorable member, Mr. T. Chambers, (Hertford,) made some objections, chiefly on the ground that the public took care of themselves, while he deprecated calling on these societies to publish their assets and liabilities oftener than once in five years."

As to the applicability of the General Law of Corporations to Life Companies, the writer says:—

"So far as Assurance Companies fall within its scope, it is not effectual; it gives to those Companies the sanction of the State; generates in the public, by that sanction, a sentiment of confidence and trust in them; and takes no means, not even insuring that any portion of the capital shall be paid up which is professed to be subscribed, to make the Companies honest, respectable, or trustworthy. They are, in most cases, honest and respectable; and it is for the few exceptions to the general rule that all the precautions of the penal laws, as well as acts to regulate joint stock companies, are necessary. Prohibitions to commit crimes unenforced by punishments if committed, would be unavailing; and so the present acts relating to Assurance Companies, which prescribe the performance of certain things, and leave the non-performance unpunished, are incomplete and unavailing." * * * *

The existence of great evils is admitted; the remedy for them is now to be found out. If it be to leave the people wholly and entirely to take care of themselves, that may be proved. If it be to make laws which now exist sufficient for their object, the means of doing that may be shown. But the evil being notorious and the subject amazingly important, nothing less than the means of providing for the future welfare of large and intelligent classes merely by securing them against fraud, it is quite impossible that the evil should be recognized and no efforts made to correct it. It may be true, as Mr. Hume stated, that legislation cannot take care of individual interests; but, in fact, all legislation has this for its object. All interests are individual. The human race are all individuals, and corporate interests of all kinds are only superinduced on individual interests. The national interests are nothing more than the interests of all the individuals composing the nation, and only to be ascertained and judged of by the well or ill being of individuals. To say, especially after the Legislature has interfered to regulate joint stock companies—after it has made laws to give them a legal as well as a social existence,—that the Legislature is not to interfere with individual interests, is to say that it must not make its own laws effectual: is to sanction its interference, and admit that it has worked evil, and refuse to make interference useful. The great question, how far the Legislature should interfere with individual interests, the most subtle question in politics, as Burke said, that ever engaged his attention, — is left wholly untouched by the resolve to inquire how interference, already authorized, can be made to accomplish the end contemplated. This is all that is proposed by the committee. A sum nearly equal to the whole of the income tax is involved in these societies; it is money laid by for the future, which cannot, like railway shares or bank stock be disposed of at a market price if any doubt be entertained of the security; and if it be desirable to take multiplied legislative precautions to secure the proper management of railways and joint stock banks, it must also, but in a stronger degree, be desirable to take legislative precautions to secure the proper management and solvency of Assurance Companies.

The *Banker's Circular* also takes up the subject of Life Insurance, as follows:—

"Mr. J. Wilson, the member for Wesbury, has brought forward a motion for the appointment of a committee to inquire into the existing state of Life Assurance Companies. We need scarcely say that this is a subject which has long demanded some attention from government, and though we are no advocates for too much interference by Parliament into the business transactions of the country, we certainly think that the subject of Life Assurance is one that may be investigated with great benefit to the public. At the same time, whatever is done should be performed with the greatest care, so as not to injure the confidence placed in those institutions that are known to be founded upon sound principles, and conducted by men of the highest integrity."

BANKS AND BANKING IN BRAZIL, AND HER DEBT.

Mr. J. Gardner, for many years one of the leading shipping merchants at Rio Janeiro, whose contributions, (relating to the coffee trade,) for the *Merchants' Magazine*, have attracted the notice of importers and consumers of the article, gives, in a private letter to a merchant of Baltimore, a few facts relating to banking and the public debt of Brazil, which we here subjoin:—

Brazil was never in so flourishing and prosperous a condition as at the present time. Her 6 per cent stocks are 5 per cent above par; in 1832 they were 65 per cent discount. Her revenues have increased, and the river Platte question being settled there will probably be a surplus, so that the export duty on coffee, &c., will be reduced in July. Some change is also contemplated in the tariff upon imports.

The domestic funded debt amounts to about 56 million of millreas or 32 million dollars. The foreign debt to nearly 6 million pounds or 30 million dollars—to which is to be added the notes in circulation on the faith of the government, about 20 million dollars, making a total of 82 million dollars. The interest of the debt having always been punctually paid, her credit stands so well in London, that a loan last year, for about £1,000,000 of 4½ per cent stock was taken at 95 per cent; it was to pay off a loan falling due. Very much is due to the present inspector of the customs, by whose good management, in a great measure, they have risen from 8 million millreas in 1846 to 14 millions in 1852. Great improvements have also been made in the custom-house to facilitate business. In fact, improvement here, as elsewhere, is the order of the day, but not to the same extent. Railroads are projected to the interior, and one already in progress, but it will take time to complete them through the mountainous districts. Water has been introduced into the city in the greatest abundance, and it will soon be lighted with gas. The latter has been done by one of the active and enterprising citizens, Senor Ireneo Evangelista de Souza, he is "a man of an age." He is the proprietor of an extensive shipbuilding establishment, in connection with a foundry and machine shop, which would do credit to any country; three and four hundred persons are constantly employed. Three steamers have been launched in one day, and they are constantly building. Senor Ireneo has a privilege for two railroads, for the navigation of the Amazon, and is building a large floating dock. The government very wisely afford him every encouragement.

As part of the debt of Brazil I included the notes in circulation, (generally called bank notes,) without an explanation, you may be at a loss to understand what they are. A National Bank was established about 1820 when exchange was at par 67½ or 1 25 per millrea. The government were large stockholders, and controlled the direction. During the Buenos Ayrean war from 1825 to 1828, the issue of paper to supply government wants was about ten times the nominal capital, the consequence was, that at the close of the war in 1828, it so depreciated that the exchange in London was 32d. per millrea. The affairs of the bank becoming more and more embarrassed, the government took charge, paid off the private shareholders, and assumed the responsibility of the notes, making them a legal tender, but not redeemable in specie.

Further issues have been made from time to time, to supply deficits, and some have been burned, the proceeds of certain appropriations for the gradual redemption, leaving the amount now in circulation about 30 million millreas. No issues have been made for several years, and it is probable that no more will be, but eventually all redeemed. Exchange on England was 19½d per millrea in 1842, from that time till 1843 it had many fluctuations. About that time the Chambers passed a law regulating the value of gold at the treasury and of certain foreign coins, making them legal tenders. This was virtually a reduction of the par of the millrea to 27½ or 55 cents. Since then the fluctuations have been less; the last three years being above par, so that large amounts of gold have been imported at a profit, and being recoined, forms a large part of the circulating medium of Rio, the notes having gone to the distant provinces. This will be the case so long as exchange continues above 27½d.

The Commercial Bank for discounts and deposits, with 2½ millions capital, was established in 1835. Receiving sums of any amount on interest, it had a large capital to discount upon. Their certificates of deposit from 1 to 4 months being often used in payments, thereby increasing the circulating medium. It has been very judiciously managed, has never met with a single loss, although the annual discounts have been from 12 to 15 millions; has paid from 10 to 15 per cent dividends annually. No bills are discounted except with two good signatures, and the signature of a director is not admitted as one. This would not suit your banking institutions. The stock rose to

50 per cent premium. In 1851 the capital was increased to 6 millions, and the stock is now worth 40 per cent. A fine granite banking house, to cost about 2 million millreas, is being built, which will be an ornament to the city!

Trade demanding further facilities, in 1851 the Bank of Brazil, with 10 millions capital, with privilege of branches, was chartered, and is now in operation upon a rather more extended plan. Both are joint stock banks, and government has no interest whatever in them, or control over them in the management. Since their interference in the affairs of the old National Bank the public are very jealous of them.

PROPOSED DECIMAL COINAGE IN ENGLAND.

The following memorial to the Chancellor of the British Exchequer, in favor of a proposed system of decimal coinage, was recently forwarded by the Manchester Commercial Association:—

That it has been satisfactorily demonstrated by many scientific and practical persons, that very great advantage would accrue to the commercial community from the adoption of a decimal system of coinage, (particularly in cases where calculations are made by way of per centages and averages;) and that the necessary change from the smaller description of coins, now in circulation throughout the United Kingdom, to those required for the proposed decimal system, might be effected with the greatest facility. That the first step towards the introduction of a decimal coinage has been taken by the issue of the florin, or "one-tenth of a pound sterling." That no change would be required in the number or value of the silver coins now most commonly in circulation, although it might be found desirable, in order to avoid confusion, to withdraw all pieces of greater value than the florin, which would then become the "second coin of account." That all shillings and sixpences might continue to circulate, as half and quarter florins respectively, and all newly coined silver should be issued with its value, as "one florin," "half florin," or "quarter florin," stamped legibly thereon. That the nature and amount of the change required in the copper money of the realm is insignificant, being not greater than four per cent in actual value. That by the division of the florin into one hundred parts, called cents, the present threefold denomination of coins of account might be retained, and the difficulty attending the introduction of one-tenth of a florin, as a fourth coin of account, might be avoided. That every amount written in pounds, florins, or cents, might then be treated as a simple number of pounds sterling, florins, or of cents, without any other reduction than that required by the removal of the decimal points. That every combination of cents, from the florin down to one cent, equal to one farthing, could be made in copper, by the employment of only two copper coins, and every combination and payment of five, ten, fifteen, twenty, &c., cents could be effected in silver by the coinage of one new piece, equal to fifteen cents, value about 3½d., and the withdrawal of the present pieces of fourpence and threepence, greater facility and more accurate subdivision of payment being thus accomplished by means of a smaller number of pieces than are now in use. That the present time of peace and commercial activity, of vastly increased intercourse with all parts of the world, especially with the United States and with France, where the decimal system already prevails, and when attention is generally directed to the subject of the currency from the discoveries of gold in California and Australia, offers as good an opportunity as can fairly be expected for the execution of this design, now too long delayed. That the adoption of a decimal coinage would, when introduced, form the first and most necessary step in a series of laws for the regulation and simplification of our measures of capacity, weight, and length; the former of which especially require early attention, on account of the abuses now notoriously prevalent which call loudly for the interposition of the legislature. That your memorialists believe, that by judicious management in the introduction of the proposed new system, very little inconvenience need be inflicted upon the mass of the people during the transition from one system to another, and that the same might be accomplished with little loss or cost to the nation, and absolutely without any injury whatever to individuals. That for these reasons your memorialists pray that the early and earnest attention of government may be directed to this subject; and they would undertake to co-operate heartily with the legislature in promoting the successful working of an improvement, small perhaps in appearance, but fraught, as your memorialists believe, with important benefits to the general trade and Commerce of the country. And your memorialists will ever pray.

BRITISH BANKRUPT STATISTICS.

The annexed returns exhibit the number of bankruptcies gazetted in each year from 1843 to 1852 inclusive:—

Official Assignees.	Districts.	1844.	'45.	'46.	'47.	'48.	'49.	Average of 6 years.	'50.	'51.	'52.	A'e of ye's.
4.	Liverpool....	73	78	128	156	109	118	113	66	96	72	78
4.	Manchester...	67	75	123	164	145	80	103	66	69	58	64
4.	Birmingham..	100	77	136	158	173	195	137	102	93	106	
4.	Leeds	85	76	150	140	119	94	115	70	90	78	79
3.	Bristol	53	62	109	126	152	98	95	52	56	49	53
2.	Exeter	19	23	44	63	85	52	47	38	35	27	34
2.	Newcastle ...	55	36	50	52	60	50	47	32	22	33	27
—	—	—	—	—	—	—	—	—	—	—	—	—
23.	Total country.	452	422	730	859	903	582	657	426	462	482	437
10.	London.....	644	527	649	800	705	574	623	411	473	399	427
—	—	—	—	—	—	—	—	—	—	—	—	—
33		996	949	1,379	1,659	1,608	1,256	1,280	837	935	822	864

THE COMMERCIAL CREDIT SOCIETY.

The Belfast *Mercantile Journal* copies from a London cotemporary the subjoined statement:—

The progress of any new branch of industry is ever regarded with feelings of interest, and there is as much reason to be solicitous about the development of any general principle that will come in aid of commerce generally. We have arrived at the conclusion, after various inquiries and information obtained, that the possibility of safely insuring mercantile houses against bad debts had been fully tested by the Commercial Credit Society. Those who were cognizant of the working of the association at Paris, since the year 1847, never entertained a doubt of satisfactory results being obtained here when the system was well understood. M. Amand Mancel de Valdoner, the founder of the "Securite Commerciale," at Paris, has furnished such statistics of its operations as to explain the formation of three or four minor associations on the same plan. The Paris company has 2,000 assurers among the principal mercantile firms, and in the year 1852, gave an immense number of references as to character, by means of its 3,200 correspondents established throughout France. The Commercial Credit Society here, owes its success to the untiring exertions of Mr. Augustine Sargood, the chairman, and the earnest enthusiasm of the small, but working board of the directors, the manager, Mr. Sewell, and the other officers. Although active operations were commenced only in June last, there are already insurances upon £1,300,000. Among the Manchester houses the objects of the Society are being warmly seconded, and at a meeting of the Council of Reference and the Directors the details given of the working of the undertaking, by a happy combination of the mutual system with just such a small infusion of the proprietary principle as to give vitality, were most encouraging. The precise objects of the society are to reimburse to the assured commercial losses, to assist them in the recovery of debts, and to make advances when losses occur, with the view of preventing temporary embarrassment and ultimate failure. The idea that there is great difficulty in applying the principle of assurance to the objects of the society has been dispelled by the opinion of Alexander B. Glen Finlaison, Esq., the Actuary of the "National Debt and Government Calculator," to whom the society at the outset submitted for perusal the synopsis and general rules, and that gentleman has stated his belief "that the plan contains within it the strongest element of success." The full benefit of all the premiums will be given by the society to the assured and not to the shareholders, who are satisfied out of a commission allowed. One moiety of the surplus of the year's premium will be applied to the reduction of the next year's premium of those whose losses have not amounted to the sum of their annual premium, and the other moiety is for the formation of a fund to grant loans to be assured at limited interest. The rules require the premiums not to be paid in advance, but at the end of the half-year. The assured, on making a claim, must give the society power, in his name, to act against the debtor; but the assured must not act without the sanction of the society. No claim for less than £10 must be sent in. The society will afford any information that lies in its power respecting the

commercial stability of traders ; and expects in time not alone to promote the security of the assured, but also to affect beneficially the whole trading community, by averting unforeseen calamities, on the one hand, and by the exposure of fraudulent traders, on the other, which individual creditors could of themselves seldom or ever bring about.

DEFULTING BANKS OF FLORIDA.

Some years since the State of Florida loaned its credit to certain banking institutions incorporated by that State. The committee, or inspectors, to whom was referred (at the last session) a bill entitled, an *Act to put in liquidation all defaulting banks of the State*, reported as follows :—

That we have had the matter involved in said bill under consideration, and while we feel no sympathy for such corporations, and would be glad to see all matters connected with those banks finally settled up and disposed of, yet the committee are unable to discover any great necessity for, or public good likely to result from, putting these banks in liquidation at the present time. The mortgages held by these banks cannot be foreclosed at this time, nor would it be politic, in the opinion of the committee, to do so, if they possessed the power. The only effect, then, likely to result from the provisions of the bill, would be the transfer of the management of the affairs of those banks from their directors to the hands of commissioners ; and, inasmuch as the legally constituted authorities of this State have disclaimed the binding efficacy of the bonds issued by said banks on the people of this State, for reasons which it is unnecessary for the committee to reiterate, it would, in our opinion, be both unwise and impolitic for this State to interfere, unless the public interests should imperiously demand it. The committee, for these reasons, recommend that the bill be indefinitely postponed.

SYNOPSIS OF THE FREE BANKING LAW OF FLORIDA.

The legislature of Florida have passed a free banking law. The main features of the bill are, that any association having a capital of at least one hundred thousand dollars, or any individual having a capital of at least fifty thousand dollars, may commence the business of banking, having first deposited with the controller of the State Treasury, State or United States stocks, equal to 6 per cent stocks, for which he (the controller) shall issue an equal amount of notes of various denominations, having first countersigned and registered the same in his office. Prior to commencing business, the banker has to cause to be registered in the office of the register of the county in which he purposed to do business, a memorandum, specifying the name of the bank, its place of business, amount of capital stock, and number of shares into which it is divided, the names and residences of shareholders, and number of shares held by each—a copy of which memorandum is filed in the office of the Secretary of State. If at any time the bank fails to redeem its notes, the holders can have the same protested for nonpayment, and file such protest with the controller of the State ; and if, at the expiration of ten days, said notes are still unredeemed, he (the controller) can give notice that the notes of the said bank will be redeemed out of the trust fund in his hands, and proceed to sell the stocks deposited as aforesaid with him for that purpose.

BULLION IN THE BANK OF ENGLAND.

A return to the British Houses of Parliament has been issued, from which it appears that, on the 16th of April, 1853, the bullion in the bank was £19,037,000. The monthly issue of notes in circulation in England, Scotland, and Ireland, in the four weeks ending the 16th of April, 1853, was £40,096,235

CONVERSION OF SOUTH SEA STOCK.

The new act of the British Parliament (16 Vict. cap. 23) for the reduction of the National Debt by South Sea and other annuities commutation, is now in operation, Proprietors of South Sea stock, three per cents, may for £100 of their stock receive £82 10s. new three and a half per cent, £110 two and a half per cent, or £100 Exchequer Bond carrying interest at £2 15s. per cent, not later than the 1st September,

1864, and after at £2 10s. per cent. Persons not assenting to commute are to receive on the 5th January, 1854, £100 for £100 stock. Persons out of Europe between the 8th April and the 30th July, 1853, are to have to the 1st February, 1854, to signify their assent to commute the stock specified. Such persons are to signify their assent within ten days of their return to the United Kingdom.

COMMERCIAL STATISTICS.

VESSELS IN THE FOREIGN TRADE OF THE UNITED KINGDOM.

The following is an account of the Number and Tonnage of Vessels, distinguishing the countries to which they belonged, which entered inwards and cleared outwards, in the twelve months ended January 5, 1853, compared with the entrances and clearances in the corresponding period of the year 1852, stated exclusively of vessels in ballast, and of those employed in the coasting trade, and the trade between Great Britain and Ireland:—

ENTERED INWARDS.

	1852.			1853.
	Ships.	Tonnage.	Ships.	Tonnage.
United Kingdom and its dependencies.	19,367	4,033,245	17,564	4,267,815
Russia.	441	122,665	335	100,353
Sweden.	557	95,096	565	94,370
Norway.	1,782	331,909	1,872	350,671
Denmark.	1,843	156,422	1,922	157,024
Prussia.	1,338	290,614	1,100	242,777
Other German States.	1,869	240,525	1,652	214,831
Holland.	1,141	125,617	1,200	126,229
Belgium.	202	36,583	216	36,399
France.	2,265	142,126	1,632	90,461
Spain.	170	26,557	192	28,721
Portugal.	72	8,944	67	8,689
Italian States.	661	170,231	425	113,453
Other European States.	273	71,690	120	31,727
United States of America.	970	778,664	1,015	863,660
Other States in America, Africa, or Asia	10	2,845	7	2,939
Total.	32,961	6,988,233	29,894	6,730,169

CLEARED OUTWARDS.

United Kingdom and its dependencies.	18,205	4,147,007	18,702	4,459,321
Russia.	305	86,182	267	75,905
Sweden.	443	70,607	530	79,554
Norway.	812	123,485	867	123,255
Denmark.	1,946	171,003	2,215	186,081
Prussia.	1,096	219,794	1,094	228,424
Other German States.	2,142	250,169	2,490	288,121
Holland.	1,165	154,885	1,374	205,741
Belgium.	202	38,667	264	47,905
France.	2,286	190,742	2,309	195,579
Spain.	181	28,226	174	27,372
Portugal.	52	7,456	48	6,221
Italian States.	579	156,590	383	102,222
Other European States.	177	48,310	80	21,872
United States of America.	946	788,406	940	821,844
Other States in America, Africa, or Asia.	6	1,615	8	3,164
Total.	30,543	6,483,144	31,745	6,872,581

VESSELS IN THE COASTING TRADE OF THE UNITED KINGDOM.

The following is an account of the number and tonnage of vessels, which entered inwards and cleared outwards with cargoes, at the several ports of the United Kingdom, during the twelve months ended 5th January, 1853, compared with the entries and clearances in the corresponding period of the year 1852; distinguishing the vessels employed in the intercourse between Great Britain and Ireland from other coasters:

	ENTERED INWARDS.		1853.	
	Ships.	Tonnage.	Ships.	Tonnage.
Employed in the intercourse between G.				
Britain and Ireland.....	9,187	1,679,483	9,406	1,762,197
Other coasting vessels	124,450	10,715,419	121,147	10,713,204
Total.....	133,637	12,394,902	130,553	12,475,401
CLEARED OUTWARDS.				
Employed in the intercourse between G.				
Britain and Ireland	19,051	2,378,097	18,676	2,409,905
Other coasting vessels.....	131,899	11,088,018	128,746	11,031,910
Total.....	150,950	13,466,115	147,422	13,441,815

THE COTTON TRADE OF LIVERPOOL.

"Liverpool is the chief emporium for cotton in the world, the imports into which market, during the last ten years, at average prices, have exceeded in value £14,000,000 per annum; the remittances and payments each working-day approach £50,000; and the brokerage alone, at $\frac{1}{4}$ per cent, including speculative transactions, distributed amongst a hundred cotton brokers, has been estimated at £200,000."—*Braithwaite Poole's Statistics of Commerce*.

Of the total miscellaneous merchandise traffic in the port of Liverpool, that is, exclusive of the coasting trade and minerals, nearly one-half consists of two commodities only, namely, cotton and timber; and it is remarkable that, during the last year, 1852, the imports of each averaged 1,000 tons daily. About six-sevenths of the cotton is brought from the Southern States of North America, which produce upwards of three-fourths of the entire growth of that article in the world; and, as nearly four-fifths of this American production is purchased by the spinners in Lancashire and Yorkshire, it is reasonable to suppose that the bulk of this traffic will always pass through Liverpool, unless, indeed, the United States should ever succeed in materially extending her cotton manufactures, and supersede those of Great Britain.

France consumed last year, according to the official returns, 451,031 bales, being an average of 8,730 per week, or about one-fifth of the quantity consumed in, and re-exported from, Great Britain during the same period.

The imports of cotton into Great Britain, last year, 1852, were as follows:—

	Bales.	Tons.
Liverpool.....	2,205,738	365,000
London.....	48,700	8,000
Hull and Bristol.....	27,200	5,000
Scotland.....	75,700	13,000
Total	2,357,338	391,000

But this was the largest yearly import on record, therefore we should take an average of ten years' imports into Liverpool alone, which gives a result of 1,570,000 bales, equivalent to 262,000 tons per annum. Thus:—

	Bales.	Tons.		Bales.	Tons.
1843.....	1,557,597	260,000	1848.....	1,568,000	262,000
1844.....	1,490,984	248,000	1849.....	1,732,700	288,000
1845.....	1,652,731	276,000	1850.....	1,573,100	263,000
1846.....	1,134,194	189,000	1851.....	1,748,946	291,000
1847.....	1,087,058	182,000	1852.....	2,205,738	365,000

The countries from which this cotton was imported appear as under:—

Imported from	Into Liverpool.	Into London.	Into Hull.	Into Scotland.	Total.
America.....	1,715,113	1,800	11,700	60,600	1,789,213
East Indies.....	149,613	46,200	14,600	11,000	221,413
Mediterranean.....	186,035	....	....	3,900	189,935
Brazil, &c.....	144,097	100	....	....	144,197
West Indies.....	10,880	600	900	200	12,580
 Total.....	 2,205,738	 48,700	 27,200	 75,700	 2,357,338

Now, these figures show that the imports of cotton into Great Britain are entirely centralized in the port of Liverpool, with the exception of about 150,000 bales; one-half of which are East Indian, chiefly brought to London, and the other half American, principally brought into Greenock and Glasgow, for consumption in the west of Scotland. Upwards of five-sixths of the cotton imported into Liverpool is warehoused before being sold or dispatched into the country for consumption.

Even the cotton imported into London, Hull, and other seaports, if not sold direct to the spinners, or re-exported, is frequently sent to Liverpool for sale, and the number of bales so brought by inland communication last year rather exceeded 4,000. The number sent by railway from Liverpool to Hull, for exportation, was 120,000; and the number to Scotland, for consumption, was 33,000 by railway, in addition to the same quantity by sea.

The total exports from the east coast, including London, were as follows:—From Hull, 123,893; London, 55,070; Leith, 8,192; Goole, 7,383; Grimsby, 6,014; Newcastle, 4,200—total, 204,752.

A great difference exists in the mode of packing cotton wool, which operates very extremely, either beneficially or prejudicially, in point of expenses incurred in portage and warehouse room, according to the description of bale; some countries press-packing it carefully, and others disregarding this important desideratum.

With regard to the freight or carriage, by ship, cart, railway, wagon, or any other vehicle, the most eligible are the East Indian bales, being so compact that double the weight of those can be stowed within the same compass, as compared with any other description of cotton.

The facilities now afforded for the conveyance of cotton from Liverpool to the interior, by inland communication, are altogether unprecedented. The railway companies run frequent trains daily, and one especially, by the London and North-Western Company, leaving Liverpool each noon, commands a large share of patronage, through effecting deliveries to the spinners the same day on which their cotton is bought. Out of two millions of bales forwarded last year, the railways carried 1,243,176, and the river and canals 744,364; besides which there were exports, as usual, to the continent of Europe, and coastwise to the various ports in England, Scotland, and Ireland. The proportionate distribution of cotton from Liverpool into the surrounding districts, taken upon an average of three years, was as follows:—

	Per cent.		Per cent.
Manchester.....	20	Bolton.....	6
Ashton, Staleybridge.....	13	Hull.....	5
Rochdale.....	12	Glossop, &c.....	4
Bury, Bacup, &c.....	9	Wigan, &c.....	3
Oldham.....	8½	New Mills, &c.....	2
Stockport.....	8	Bristol, &c.....	2
Preston.....	6½	Other places.....	1

But the cottons forwarded to Manchester are not all consumed there; large quantities are taken away to mills situated at a distance, the proprietors of which are necessarily compelled to send their own carts with calicoes, wefts, and warps to Manchester, for dyeing or printing, and such carts would return empty if it were not for an abatement made by the water-carriers to such parties from the ordinary rate of carriage charged to Manchester; consequently, unless the rates to the forward towns around Manchester, such as Ashton, Staleybridge, Oldham, Stockport, &c., be charged even less than to Manchester, some spinners will continue to order their cotton there, and cart it away themselves, while such rebate is allowed to them.

Formerly, the custom of the large cotton-spinner was to purchase largely and in-

frequently the raw material, ordering it to be housed and insured in the carrier's premises; whereas now his custom is to purchase in small quantities frequently, and order it forward instantly direct to his mill. A few years ago the London and North-Western Company often held 1,500 to 1,800 bales in their warehouses for one party alone, and during the year 1846, they had at one time housed in Manchester nearly 23,000 bales; whereas last year, 1852, they never had more than 8,000 bales at any one period in any of their warehouses at Manchester, Stockport, Bolton, or elsewhere; although the quantity carried was so much greater than that of any previous year.

A very improper custom exists in Liverpool amongst importers and sellers, whose men take a hatchet and chop off each intermediate rope from every bale of American cotton before warehousing or forwarding it into the country, which malpractice is very detrimental to the interests of purchasers; because it destroys the shape of the bale, renders it unfit for proper stowage in the warehouse, cart, flat, or wagon, and far more liable to damage by wet, dirt, and fire; exposes the cotton to pilferage in passing through the streets, and affords excuses and opportunities to men for cutting and carrying off ropes of every kind belonging to anybody else, to be sold; it induces other men also to do wrong, and gives encouragement to those places well known amongst the police as the chief receptacles for stolen property of this description.

Besides all these evils, it causes 20 per cent more room to be provided in the vehicles and in the warehouses, although no necessity whatever exists for cutting away these ropes, as the bales can be sampled just as well with the usual complement of four or five ropes, and the tare can be easily arranged when weighing over the cotton to the buyer, by placing as many ropes in the opposite scale as are on the bale.—*Liverpool Times*.

COMMERCE OF THE SANDWICH ISLANDS.

From the custom house statistics published in the *Polynesian* of the 29th January, 1853, we derive the following "facts and figures," which will give an idea of the Commerce and industrial condition of the kingdom:—

IMPORTS.—There is a large falling off in the value and amount of goods imported for consumption. The value of goods imported, as compared with previous years, is as follows:—

1852.	1851.	1850.
\$759,863 54	\$1,823,821 68	\$1,035,058 70

Giving as an average of imports for three years, \$1,206,249 64.

The exports of foreign merchandise have been about the same as during 1851.

REVENUE.—The custom house receipts, compared with former years, are:—

1852.	1851.	1850.
\$113,091 93	\$160,602 19	\$121,506 73

Which shows a decrease of \$47,510 26 as compared with 1851, and \$7,414 80 as compared with 1850.

EXPORTS.—The following comparison of some of the staple exports for the Islands with those of former years, show at a glance that the exports for 1852 do not equal those of 1850, though a large gain on those of 1851:—

	1852.	1851.	1850.
Sugar	lbs. 729,877	21,030	750,238
Syrup	galls. 36,375	60,111	75,577
Molasses	46,000	18,631	53,855
Coffee	lbs. 117,210	37,190	208,428
Salt	7,118	8,769	7,652

VESSELS.—The number of merchant vessels that visited the Islands in 1852 is as follows:—

	1852.	1851.	1850.
Arrivals	235	446	469

It is impossible, from the tables, to give the number of whalers that have visited the Islands, but the number is about 300, which is much more than the number in 1851 or

1850. It may be added here, in regard to the number of merchant vessels in 1851 and 1850, that a large proportion of them were small vessels, engaged in the potato trade, while in 1852 the vessels have been generally of a larger class. Another reason for the large number given in 1850 and 1851 was the fact that vessels more generally then touched at several ports, which would increase the number in the custom house returns, though in fact it should not. The ports being now more generally known, vessels for produce go directly to the port where they can obtain their cargoes.

GOODS IN WAREHOUSES OF THE UNITED STATES.

STATEMENT SHOWING THE VALUE OF GOODS REMAINING IN WAREHOUSE AT THE CLOSE OF EACH QUARTER, FROM SEPTEMBER 30, 1847, TO JUNE 30, 1852, AND ALSO AMOUNT OF DUTIES PAYABLE THEREON; DERIVED FROM A STATEMENT OF THE REGISTER OF THE TREASURY.

Periods ending—	Goods remaining in Warehouses.	
	Value.	Duties.
Sept. 30, 1847.....	\$3,618,758 00	\$1,264,624 55
Dec. 31, 1847.....	4,863,591 00	1,524,887 16
March 31, 1848.....	5,291,179 00	1,669,067 39
June 30, 1848.....	6,272,275 00	1,936,464 00
Sept. 30, 1848.....	5,419,676 00	1,649,182 85
Dec. 31, 1848.....	7,201,246 00	2,152,544 50
March 31, 1849.....	5,450,593 20	1,702,639 37
June 30, 1849.....	7,830,010 00	2,501,394 36
Sept. 30, 1849.....	6,021,627 00	1,927,754 72
Dec. 31, 1849.....	6,163,151 00	1,997,536 75
March 31, 1850.....	5,600,818 00	2,009,165 33
June 30, 1850.....	8,247,055 00	3,077,129 80
Sept. 30, 1850.....	8,162,721 00	2,930,035 49
Dec. 31, 1850.....	7,307,623 00	2,304,419 50
March 31, 1851.....	7,127,751 00	2,293,090 13
June 30, 1851.....	10,047,061 00	3,172,328 08
Sept. 30, 1851.....	12,049,892 00	3,748,594 48
Dec. 31, 1851.....	11,807,493 00	3,575,930 61
March 31, 1852.....	9,819,475 00	3,169,553 74
June 30, 1852.....	8,723,056 00	2,866,564 75
Total.....	\$147,024,551 00	\$47,552,907 55
Average quarterly value.....	7,351,227 55	2,377,645 38

FOREIGN EXPORTS OF BREADSTUFFS.

We give below a statement of the quantities of wheat, barley, rye, oats, &c., exported from the undernamed ports during the year 1852, derived from a statement published in the Belfast *Mercantile Journal*, under the signature of James Shepard:—

	Wheat.	Barley.	Rye.	Oats.	Peas & Beans.
Konigsberg	89,560	51,180	3,980	.....	26,480
Dantzig.....	264,950	1,250	21,960	.....	4,470
Stettin	170,520	21,454	16,427	2,436	3,950
Anclam, Wolgast, and Demmin	151,260	22,958	7,470	8,730	1,924
Griefswald and Stralsund	75,335	45,021	6,900	23,482	1,050
Rostock	126,320	19,896	4,459	1,300	6,050
Wismar	57,850	3,028	1,092	5,900	5,200
Lubeck and Hamburg	79,080	42,900	1,760	8,620	23,760
	1,014,875	187,187	64,048	41,468	72,884

FREIGHTS.—At the upper Baltic ports, 3s. 6d. to 4s. 6d., according to size and class, has been given for London, and 6d. to 9d. more to the west coast; to coal ports, 3s. to 3s. 6d.; at the lower ports, charters have been closed at 3s. 3d. to London, and 3s. 9d. to 4s. west coast. For coal ports, 3s.

EXPORTS OF GREAT BRITAIN AND THE UNITED STATES.

The following table will show the comparative progress of the exports of Great Britain and the United States to the same countries at the time the Free Trade policy commenced in Great Britain, and for the last fiscal year:—

EXPORTS OF GREAT BRITAIN TO CHIEF COUNTRIES, AND OF THE U. STATES TO THE SAME.

To what countries.	1842.		1851.	
	From Gt. Britain.	From U. States.	From Gt. Britain.	From U. States.
Russia, N. Ports.....	£1,895,953	\$316,026	£1,157,542	\$1,465,704
Ports within B. Sea			132,161	
Schwain.....			38,153	.....
Hanover.....			227,288	.....
Oldenberg and Kniphausen.....	6,202,700	3,814,944	10,909	.....
Hanseatic Towns			6,920,078	5,405,956
Heligoland.....			238	.....
Holland.....	3,573,302	3,236,338	3,542,673	1,911,115
Belgium.....	1,099,490	1,434,038	984,501	2,709,333
France.....	3,193,939	17,563,589	2,028,463	25,660,925
Spain, and Belearic Isles	322,614	555,120	1,015,495	5,410,044
Italy, &c.....	2,494,197	3,083,682	3,921,035	4,354,988
Turkish Dominions, &c.....	1,472,288	125,521	2,221,359	162,204
Continental India, &c.....	5,169,208	899,979	7,806,596	512,906
China.....	969,381	737,509	2,161,268	2,155,945
British Set. in Australia.....	916,164	52,651	2,807,356	.....
British North America	2,333,525	5,950,143	3,813,707	9,060,387
Brit. W. I. Islands & Guyana.....	2,591,425	3,819,337	2,201,032	4,484,114
Cuba		4,197,468	1,184,177	5,229,276
Porto Rico.....		610,813	63,353	961,410
Guadalupe		1,173,905	135	
Martinique.....	711,938	.....	1,642	
Curacao.....		.....	43,096	979,623
St. Croix.....		101,055	5,086	
St. Thomas.....		.....	572,721	
Hayti	141,896	844,452	239,146	1,679,372
U. S. of America.....	3,535,881	.....	14,362,977	.....
Mexico.....	374,969	969,871	577,901	577,901
Central America.....		46,649	319,814	223,302
New Grenada.....	231,711	51,363	319,889	2,507,701
Venezuela.....		499,780	349,701	854,779
Ecuador.....		.....	54,099	.....
Brazil	1,756,805	2,225,571	3,518,684	3,128,956
Chili	950,466	1,270,941	1,181,837	1,608,877
Great Britain .....	.....	38,234,511	.....	109,531,612
	£47,381,023	\$92,969,996	£74,448,722	\$196,689,718

TOBACCO IN GREAT BRITAIN.

The following table, taken from a paper read at the Liverpool Statistical Society, shows a rapid increase in the consumption of tobacco in the United Kingdom during the last thirty years:—

	Consumption. Pounds.	Duty per lb.	Population.	Consumption per head. ounces.
1821.....	15,598,152	4s.	21,282,960	11.71
1831.....	19,553,841	3s.	24,410,439	12.80
1841.....	22,309,360	3s.	27,019,671	16.21
1851.....	28,062,978	3s.	27,452,262	16.83

The total production, annually, of tobacco, is estimated at 12,000,000 tons, and would require half the British tonnage which "enters inward," or "clears outward," annually, to transport it.

IMPORTS OF GRAIN INTO GREAT BRITAIN AND IRELAND.

ACCOUNT OF THE FOREIGN CORN, GRAIN, MEAL, AND FLOUR, IMPORTED INTO GREAT BRITAIN AND IRELAND, IN THE FOLLOWING YEARS. DERIVED FROM THE CIRCULAR OF J. AND E. STURGE.

	Wheat. Qrs.	Barley & Bigg. Qrs.	Oats. Qrs.	Beans. Qrs.	Rye. Qrs.	Indian Corn or Maize. Qrs.	Flour and Meal. Cwt.
1830..	1,414,262	132,210	499,947	16,909	44,784	1,031	560,249
1835..	46,530	67,796	117,673	34,380	21	1,808	84,684
1840..	1,995,453	625,437	537,805	129,418	8,832	22,021	1,552,697
1845..	844,533	367,854	586,860	185,008	485	55,984	924,256
1846..	1,437,336	371,137	794,863	255,521	1,688	694,184	3,363,810
1847..	2,650,058	772,840	1,706,780	418,719	68,817	3,614,637	8,637,377
1848..	2,477,366	977,203	930,265	480,706	59,825	1,577,023	1,731,974
1849..	3,872,568	1,388,494	1,981,517	456,023	241,613	2,189,164	3,483,294
1850..	3,754,592	1,043,051	1,165,878	443,306	94,078	1,286,263	3,855,058
1851..	3,831,836	884,491	1,209,744	318,502	24,612	1,821,573	5,363,478
1852..	3,068,892	626,737	995,479	371,899	10,023	1,479,899	8,921,634

AN ACCOUNT IN QUARTERS, OF THE CORN, MEAL, AND FLOUR, IMPORTED INTO GREAT BRITAIN IN THE FOLLOWING YEARS:—

1815.....	1,154,258	1840.....	6,318,304	1849.....	12,001,848
1820.....	2,757,572	1845.....	5,423,945	1850.....	10,473,253
1825.....	3,261,739	1846.....	6,536,777	1851.....	11,073,171
1830.....	4,650,567	1847.....	13,196,059	1852.....	9,556,200
1835.....	3,000,643	1848.....	9,182,338		

BRITISH REGISTERED VESSELS.

Returns of British ships employed in the trade of the United Kingdom in the year 1852, as compared with the year 1851, not including repeated voyages.

[This return embraces vessels belonging to the Channel Islands, but not vessels registered in the British plantations.]

Aggregate returns, showing the total number of British registered ships employed in trading in, from, and to Great Britain and Ireland, in the years 1851 and 1852, with their tonnage and number of men:—

SAILING VESSELS.			
Years.	Number of vessels.	Tonnage.	Number of men employed.
1851.....	17,664	3,216,194	181,277
1852.....	17,270	3,215,665	146,286
STEAM VESSELS.			
1851.....	520	144,741	10,660
1852.....	549	165,219	13,277

Of which were employed solely as foreign-going ships:—

SAILING VESSELS.			
Years.	Number of vessels.	Tonnage.	Number of men employed.
1851.....	7,277	2,287,807	85,801
1852.....	7,431	2,365,995	103,618
STEAM VESSELS.			
1851.....	134	60,995	4,830
1852.....	149	83,369	7,151

Total—Sailing vessels and steamers together:—

1851.....	18,184	3,360,935	141,937
1852.....	17,819	3,380,884	159,563

VALUE OF CANADIAN EXPORTS AND IMPORTS IN 1852.

The value of the exports from Canada during 1852, was \$14,055,974, and the imports are given at \$20,285,492.

COMMERCIAL REGULATIONS.

LAW OF LOUISIANA RELATING TO COLORED SEAMEN.

AN ACT TO AMEND AN ACT ENTITLED "AN ACT MORE EFFECTUALLY TO PREVENT FREE PERSONS OF COLOR FROM ENTERING THE STATE AND FOR OTHER PURPOSES," APPROVED SIXTEENTH OF MARCH, 1842.

SEC. 1. Be it enacted by the Senate and House of Representatives of the State of Louisiana, in General Assembly convened, That so much of section first of said act as refers to the imprisonment of every free person of color that may arrive in the State on board of any ship, vessel, or steamboat in the capacity of cook, steward, or mariner, be so far amended as to allow such persons of color, while in any port of the State, to remain on board such ship or vessel, upon the due execution of the bond and penalty prescribed by the second section of said act.

SEC. 2. Be it further enacted, &c., That it shall be the duty of the master or owner of every such steamboat or vessel, immediately upon his arrival at any port in this State, to report to the Mayor, Recorder, or competent authority, the name, age, description, and capacity of every free person of color employed on board his vessel, and obtain a passport from such authority to permit such person of color to land, should it be necessary for his duties and employment as cook or steward, and it being within the discretion of said Mayor, Recorder, or other competent municipal officer, to grant or refuse said passport.

SEC. 3. And be it further enacted, &c., That in case a free person of color, so arriving as aforesaid, shall be found on shore without such passport, and in contravention with the provisions of this act, or of the said act of the sixteenth of March, eighteen hundred and forty-two, he shall be imprisoned until the departure of said steamboat, ship, or vessel, and the master and owners become jointly and severally responsible in the sum of one thousand dollars for each free person of color, according to the provisions of the second section of the said act of the sixteenth of March, 1842, and all the provisions of said act, not specially hereby repealed, shall continue in full force and virtue.

SYNOPSIS OF THE MEXICAN TARIFF OF 1853.

We are indebted to the Vice Consul for the subjoined synopsis of the new Mexican Tariff:—

PORTS DECLARED OPEN TO FOREIGN COMMERCE.

On the Gulf of Mexico: Sisal, Campeche, San Juan Bautista de Tabasco, Vera Cruz, Tampico, de Tamaulipas, and Matamoros.

On the Pacific Ocean: Acapulco, Manzanillo, San Blas and Mazatlan, and Gaimas in the Gulf of California.

On the Northern frontier: Matamoros, Presidio del Norte and Paso del Norte.

On the Southern frontier: Comitan and Truxtla Chico.

The principal articles which are declared free of duty, on importation, are: Card-wire, quicksilver, coal (while it is not mined in the country in sufficient quantity,) animal carbon, lumber for building purposes when imported at El Paso, type, books and printed matter stitched only, agricultural, mining, and mechanical implements, spars, all kinds of boats, vessels for navigation, rags for paper, fire bricks, and printing ink. Gold and silver bullion are also free.

PRINCIPAL ARTICLES THE IMPORTATION OF WHICH INTO MEXICO IS PROHIBITED.

Tafia or Spanish brandy, and all other spirits except those produced from the grape, gin, rum, and such others as are specified, when imported in bottles, flasks or jugs; starch, except such as are specified; sugar, rice, indigo, copper and brass, wire, sulphur, boots and shoes, coffee, wax in manufactured form, cast nails, bar copper and copper utensils, tortoise shell manufactured, Morocco leather, bar tin, bridles, bits and spurs such as are made in Mexico, deer skins, flour (except in Yucatan,) cotton yarn for the term of one year, after which its import is allowed as specified; common soap, lard, molasses, lumber of all kinds, except spars; saddles, cards, gold leaf, broadcloth except first qualities; parchment, lead in pig or shot, powder except sporting; imitation rebozos, clothing, except as specified in the tariff; salt, saltpeter, tallow, tobacco and sugars, salt pork, wheat and cereal grains, blankets and coverlids.

The law of the 4th April, 1849, permitting the importation of flour, rice, sugar, coffee, pork sides, lard, and all other necessaries, at Matamoros and other frontier ports, under specified duties, remains in full force.

TARIFF.

Steel.....	per ql.	\$1 50	Cocoa, all other	6 00
Calfskins.....		30 00	Ale and cider, in bottles.....	6 00
Wax, white and yellow		15 00	in bbls.....	4 00
Pasteboard.....		5 00	Provisions not prohibited, as hams, sausages, etc.....	per ql. 6 00
Glassware, without breakage, gross weight.....	per ql.	8 00	Preserved provisions.....	15 00
Staves, gross weight.....		50	Sweetmeats	30 00
Sperm, manufactured, net.....		15 00	Pickles.....	16 00
unmanufactured, net.....		6 00	Fruit in brandy.....	20 00
Iron, pig.....		1 00	preserved.....	8 00
sheet, wrought, and bar.....		2 00	Shipbread	3 00
Tin plate		4 00	Butter.....	6 00
Cordage		2 50	Ice.....	15
Stoneware		4 00	Figs, raisins, and dried fruit.....	2 00
Porcelain		8 00	Vermicelli	2 00
Shingles.....	M.	1 20	Pepper	6 00
Straw paper, net	per ql.	2 00	Cheese	4 00
Sand paper, net.....		2 00	Sardines, salmon, etc.....	4 00
Colored paper, net.....		4 00	Tea.....	50 00
Paper Hangings, net.....		8 00	Wine, white, bbls.....	5 00
Letter paper, net		10 00	bottles	7 00
Printing paper, net		3 00	red, bbls.....	3 00
Hats,	each.	2 00	bottles	4 00
Stearine candles.....	per ql.	6 00	Grapes	1 00
Window glass		6 00	Drugs and medicines of all kinds, 40 per cent ad. val.	
Olive oil.....		3 00	Ironware is classified in three classes, paying respectively, \$2, \$4, and \$9 per ql.	
Olives.....		2 00	Nails, wrought or cut, more than 1 inch in length.....	per ql. 4 60
Gin, bottles or jugs.....		10 00	Nails, do, less than 1 inch.....	6 00
Rum,	12 00		Tacks and brads, more than 1 inch long.....	6 00
Arrack,	12 00		Do. do. less than 1 inch.....	8 00
Brandy, grape.....	bottled.....	8 00		
Almonds, shelled.....		9 00		
Codfish and other, salted		5 00		
Vinegar, bbls.....		4 00		
Cocoa, Guayaquil		1 50		
		3 00		

The list of articles of hardware, which in the old tariff are classified in six classes paying respectively \$6, \$10, \$15, \$20, \$30, and \$40 a quintal, remain without alteration and with the same duty.

COTTON GOODS.

Cotton	per ql	\$3 00	Lace.....	1 50
Socks, men's and women's.....	doz.	50	Printed cottons, checks, etc., 1 yard wide	vara. 06 $\frac{1}{2}$
children's.....		30	wide	vara. 06 $\frac{1}{2}$
Undershirts and drawers		4 00	Cotton damask	08
Gloves		50	Fringe, white and colored	lb. 30
Yarn, white and unbleached, after one year	lb.	15	Stockings, men's & women's.....	doz. 1 00
Do. colored.....		30	children's.....	50
Thread, spool, 300 yards	doz.	08	Muslins, printed, 1 yard wide.....	06
balls and skeins.....	lb.	30	white and colored, fine, 1 yard wide.....	vara. 08
Sheetings, bleached & unbleached, one yard wide, 30 thread or less to the quarter of an inch	vara.	05	Do. worked, do.....	10
Do. do. of more than 30 threads to the quarter of an inch	vara.	60	Handkerchiefs, one yard square, colored	each 04
Tape	lb.	60	Do. white and fine, 1 y'd wide...	06
			Do. worked, one yard wide.....	12 $\frac{1}{2}$
			Umbrellas	40

WOOLEN GOODS.

Carpeting, one yard wide .per vara	50	Stockings, children's	50
Socks, men's .....doz.	50	Woolen and worsted yarn	35
children's	30	Broadcloth, one yard fine...vara.	60
Undershirts and drawers.....	3 50	Handkerchiefs, all kinds...each.	12 $\frac{1}{2}$
Cassimeres, one yard wide...vara.	40	Woolen stuffs, plain, white, and	
Wool.....ql.	2 50	colored, one yard wide...vara.	07 $\frac{1}{2}$
Worsted work.....lb.	1 00	Do. worked or printed	09
Stockings, men's.....doz.	1 00		

LINEN GOODS.

Carpeting, one yard wide .per vara	07	quarter of an inch, one yard wide	05
Sheetings, one yard wide.....	04		
Hemp .....per ql.	1 20	Do. of more than 36 threads to the quarter of an inch....vara.	07
Socks, men's.....doz.	50	Do. printed checks, etc., one yard square	07
children's	25	Do. damask, one yard wide.....	09
Tape, all colors	36	Do. worked, " "	12 $\frac{1}{2}$
Gloves	50	Stockings, men's.....doz.	1 00
Thread, all kinds.....lb.	45	children's	50
Twine.....ql.	3 00	Handkerchiefs, plain and colored, 1 yard square	60
Yarn.....	2 40	Do. white or with colored border, 1 yard square	1 00
Flax	1 50	Do. worked, 1 yard square	2 00
Linens, white and colored, 1 yard wide, common.....vara.	04		
Do. plain and grass cloth, white or colored, not over 36 threads to the			

SILK GOODS.

Blondes and laces of all kinds..lb.	8 00	Silk for embroidery	lb. 1 20
Umbrellas, sunshades, etc....each.	1 00	Silk for twist.....	2 00
Raw silk.....lb.	60	Silk goods, all kinds.....	3 00

MIXED GOODS.

Cotton and silk.....lb.	1 00	silk, and cotton	lb. 1 50
Linen and silk.....	1 30	Goods with metal interworked will	
Wool and silk	1 50	pay 20 per cent on valuation...	

MISCELLANEOUS.

Fans, ivory.....lb.	1 00	Bricks, common.....	M. 2 00
Do. tortoise shell, pearl, etc	2 00	Tiles, glazed.....	3 50
Artificial flowers.....	2 00	Combs, wood	ql. 2 00
Gloves, kid, long	1 50	Pianos, square	each 80 00
worked	3 00	upright.....	90 00
short	1 00	Plate, silver	oz. 25
short, worked.....	1 50	Powder, fine	lb. 10
Harness, wagon, etc.....ql.	20 00	Ink.....	10
Do. carriage.....	40 00	India Rubber goods.....	30

The tariff laws respecting invoices, ships, papers, etc., remain without alteration, except that the weight of all packages must be expressed.

This tariff will go into operation on the first day of September next, for all vessels bound from Atlantic ports to ports on the Pacific ; on the first of October for vessels from European ports to ports on the Gulf of Mexico ; and on the first of August for vessels from American ports and Islands to ports on the same side of the continent as the port of departure.

Until this tariff be enforced, duties will be collected by the tariff of 4th of October, 1845, with the reforms established by the laws of 21st of November, 1848, and 24th of January, 1853.

The imports of cotton yarns will be permitted for the term of four months, from the first of June, paying a duty of fifteen cents a pound.

NAUTICAL INTELLIGENCE.

LIGHTS ON THE NORTH COAST OF SICILY.

DEPARTMENT OF STATE, WASHINGTON, June 27th, 1853.

To FREEMAN HUNT, *Editor of the Merchants' Magazine.*

SIR:—I will thank you to publish in your Magazine the inclosed "Notice to Mariners, No. 134," transmitted to this Department by the U. S. Consul at London.

I am, Sir, respectfully, your obedient servant,

W. L. MARCY.

HYDROGRAPHIC OFFICE, ADMIRALTY, May 6th, 1853.

NOTICE TO MARINERS.—LIGHTS OF THE NORTH COAST OF SICILY.

The Neapolitan government has given notice of the following changes in the three Lights on the North Coast of Sicily.

1. At Palermo. The Fixed Light on the pier head is now varied by Flashes every two minutes. It is 92 feet above the mean level of the Sea.

2. On Cape Milazzo. The former Revolving Light is now a Fixed Light. Its hight is 288 feet above the mean level of the sea.

3. The Fixed Light on Cape Faro is now varied by Flashes every three minutes. It is 72 feet above the mean level of the sea.

ELECTRIC TELEGRAPH FROM ORFORDNESS TO HOLLAND.

NOTICE TO MARINERS.

TRINITY-HOUSE, LONDON, June 7th, 1853.

Notice is hereby given, that the Submarine Cables from Orfordness to Holland, lay in a direction E. S. E. from the Orfordness High Lighthouse, with the Lighthouse on with Gedgrave high Trees, bearing W. N. W.; and that it is desirable that vessels should not anchor with those marks or bearings on, lest, by so doing, they damage the electric cable, or lose their own anchors.

By order,

J. HERBERT, Secretary.

NAUTICAL DISCOVERIES AND DEEP SEA SOUNDINGS.

NATIONAL OBSERVATORY, Washington, March 28, 1853.

SIR:—Lieut. O. H. Berryman, commanding United States brig "Dolphin," on service connected with the labors of this office, reports that he made a thorough search for the "Eight Stones," said to exist in lat. 34 deg. 22 min. north, long. 16 deg. 40 min. west, and for Jean Hammond's Rock, lat. 36 deg. 56 min. north, long. 19 deg. 50 min. west, and that no such dangers, or obstructions to navigation, exist in the places assigned them.

Where the former were said to exist, he found the sea to be 2,298 fathoms deep; and where the latter, 2,950 fathoms.

From Dec. 21, 1852, to Jan. 3, 1853, he was cruising about the position of the "Eight Stones," and his search for Jean Hammond's Rock lasted five days. He is certain that neither of these dangers exists; and, concurring with him in this belief, I have directed them to be erased from the charts of this office.

I quote from his abstract log other dangers for which he searched; but as he did not have an opportunity of cutting up the sea in their neighborhood as thoroughly as in the two instances already quoted, he is not so certain that he has established their non-existence.

Though I am of opinion, taking his search in connection with other circumstances as known to this office, that the existence of most of these dangers is also hypothetical.

I have the abstract logs of many vessels that have passed over and near the positions assigned them, and in no instance, except in the case of Harigault, is it mentioned that they were seen.

FROM THE LOG OF THE UNITED STATES BRIG "DOLPHIN."

Harigault Rock, lat. 40 deg. 58 min. north, long. 48 deg. 40 min. west. Oct. 9, 1852.

The Dolphin saw nothing of the danger. Oct. 10, lat. 41 deg. 54 min. north, long. 56 deg. 19 min. west, saw a small whale, which looked something like a rock. No doubt all the discoveries of rocks hereabouts have been iceberg or whales, as I notice the date of discoveries corresponds with the iceberg season exactly.

Darailis Rock, lat. 40 deg. 52 min. north, long. 54 deg. 42 min. west. Oct. 11, 1852. No appearance of this rock; sounded about its position, and got bottom at the depth of 3,450 fathoms.

Herragault breakers, lat. 41 deg. 7 min. north, long. 49 deg. 23 min. west. Oct. 20, 1852, sounded with 4,580 fathoms up and down, (near the position of Herragault's breakers.) No appearance of either shoals or rocks.

Thirty-five fathom shoal, lat. 42 deg. 32 min. north, long. 45 deg. 17 min. west, and lat. 44 deg. 37 min. north, long. 40 deg. 26 min. west. Oct. 23, sounded and got bottom with 2,700 fathoms line up and down. No indication of soundings.

Jean Hammond's Rock, lat. 36 deg. 56 min. north, long. 19 deg. 50 min. west. Jan. 8 to 12, 1853; does not exist. Sounded 2,950 fathoms, (bottom.) No indications of shoal water.

Rock, lat. 30 deg. 50 min. north, long. 27 deg. 19 min. west. Jan. 29, 1853. No bottom at 2,200 fathoms. Jan. 30, lat. 30 deg. 44 min. north, long. 27 deg. 21 min. west, passed over a reported vigia. No appearance of shoal water.

He also passed near the place for Watson's Rock; and though he did not have an opportunity to clear up all doubts with regard to it, he saw "no appearance of shoal or rocks."

It is to be regretted that circumstances did not permit him to remove every doubt with regard to the existence and place of all those dangers.

Lieut. Berryman has also performed the most acceptable service of running two lines of deep sea soundings across the Atlantic. The results give plausibility to the conjecture that the North Atlantic Ocean is probably nowhere much more than 5,000 fathoms (30,000 feet) deep.

DEEP SEA SOUNDINGS U. S. BRIG DOLPHIN, LIEUT. O. H. BERRYMAN, COMMANDING.

Date.	Lat. N. D. M. S.	Long. W. D. M. S.	Depth in fathoms.
Oct. 4, 1852.....	39 39 00	70 30 00	1,000 no bottom.
" 7 "	41 12 00	62 38 00	2,200 bottom.
" 9 "	41 40 00	59 23 00	2,600 "
" 10 "	41 40 00	56 01 00	2,595 "
" 11 "	40 36 00	54 18 30	3,450 "
" 20 "	41 07 00	49 23 15	4,580 "
" 24 "	43 40 00	42 55 00	2,700 "
" 25 "	44 41 07	40 16 00	1,800 "
" 26 "	33 08 00	18 10 00	2,950 no bottom.
Jan. 3, 1853.....	34 15 00	16 45 00	2,298 bottom.
" 9 "	36 49 00	19 53 45	2,950 "
" 9 "	36 59 00	19 58 00	2,500 "
" 29 "	30 49 00	27 25 00	2,200 no bottom.
" 30 "	30 45 00	27 31 00	2,480 bottom.
Feb. 3 "	27 05 00	28 20 26	1,700 "
" 4 "	29 21 00	30 48 00	2,580 "
" 5 "	31 17 00	33 08 00	2,400 "
" 6 "	28 55 00	35 49 00	1,800 no bottom.
" 8 "	29 13 30	41 20 50	2,270 bottom.
" 9 "	31 16 00	43 28 00	2,089 "
" 10 "	33 01 00	44 31 00	2,250 "
" 11 "	32 29 00	47 02 00	1,950 no bottom.
" 12 "	32 55 00	47 58 00	6,600 doubtful.
" 13 "	33 03 00	48 36 00	3,550 bottom.
" 15 "	32 47 00	50 00 00	3,250 no bottom.
" 20 "	28 59 00	57 51 00	1,380 bottom.
" 22 "	28 20 00	59 44 00	2,900 doubtful.
" 23 "	28 04 00	61 44 00	3,000 bottom.
" 24 "	28 23 00	64 17 00	2,518 "
" 25 "	27 42 36	66 11 15	1,000 no bottom.
" 26 "	26 49 00	66 54 00	2,720 bottom.
" 28 "	28 16 00	69 24 00	2,950 "

The weight used was sometimes two 32-pound cannon balls, and other times four. When the great sounding of 6,800 fathoms was made, the weight was one 32-pound shot, and the line used the large sounding twine. I think it more than probable that much of this great length of line was taken out by an under-tow; for the rates at which it was taken from the reel are not conformable with other casts.

Respectfully, &c.,

M. F. MAURY, Lieut. U. S. N.

Hon. J. C. DOBBIN, Sec. of the Navy, Washington.

GEOGRAPHICAL POSITION OF PUNTA DE LOS REYES.

COAST SURVEY OFFICE, May 26th, 1853.

SIR:—I have the honor to report the following results for the geographical position of *Punta de los Reyes*, California, (Sir F. Drake's Bay,) from observations made by Assistant G. Davidson, computed in this office.—

Punta de los Reyes, Latitude $37^{\circ} 59' 34''$
Longitude $122^{\circ} 57' 40''$

I would request authority to publish the above.

Very respectfully, yours, &c.,

A. D. BACHE, Supt.

Hon. JAMES GUTHRIE, Secretary of the Treasury.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

LOCOMOTION BY STEAM ON COMMON ROADS.

To FREEMAN HUNT, *Editor of the Merchants' Magazine.*

DEAR SIR:—I gladly avail myself of your liberal permission to give a sketch of my views on locomotion on common roads by steam, or other elementary power. I will commence by stating what has been done by the English inventors, Gurney, Hancock, Russell, and others; after which I will give you my own plan, which has been commended by several distinguished engineers.

In 1831, after about seven years spent in costly experiments, each more successful than its predecessor, Mr. Goldsworth Gurney produced three carriages for Sir Charles Dance, who established them as a regular conveyance between Gloucester and Cheltenham.

They ran regularly for four months, at one shilling per passenger; the horse coaches having lowered their fares from four shillings sixpence to one shilling, for the purpose of driving them off. Finding this opposition ineffectual, the proprietors of the horse coaches induced the trustees of the road to lay upon it enormous masses of broken stone, which stopped many of the horse coaches, caused them to break their harnesses, forced their passengers to dismount, and, in several cases, made it necessary to get auxiliary horses. One of the steam carriages ran over the masses of stone to Gloucester and back, with much difficulty. Finding that they could work while horse coaches were interrupted, it was determined to continue running; but, on the third trip, the crank axle was broken. At the same time Sir Charles Dance learned that the opposition had exerted sufficient influence to get fifty-one turnpike bills, all of them imposing prohibitory tolls, passed through parliament, the Cheltenham trust being included in them. Under these discouragements, Sir Charles deemed it expedient to withdraw until the Legislature should see its error and relieve the new invention from

the oppression. Mr. Gurney petitioned to have the tolls made equal to those upon horse coaches carrying the same number of passengers. After an elaborate investigation by a committee, the House of Commons passed a bill to adjust the tolls on this principle of equality; but the Lords rejected it. Gurney again, in 1834, renewed his petition; the Commons passed a similar bill, and the Lords again rejected it. And to this day the prohibitory tolls remain.

Mr. Walter Hancock, from 1831 to 1834, ran carriages from Paddington to the Bank of England, paying about twice the tolls paid by horse coaches, and yet making enough to pay his expenses, and furnish him with means for experiments which did not result in material improvements. At last he was prosecuted and fined for running without a license; the acts of Parliament being so worded that he could not obtain either a stage-coach or a hackney-coach license. Finding that he had enemies to complain of him to the magistrates, he desisted from running.

In 1834, Mr. John Scott Russell built six carriages for the Steam Carriage Company of Scotland. They ran between Glasgow and Paisley. Their best speed, when fully loaded, was from seventeen to twenty-one miles per hour. The road, as had been the case between Gloucester and Cheltenham, was, at the Glasgow end, soon loaded with such masses of broken stone as prevented ordinary vehicles from going over it, notwithstanding which the best carriage performed the whole journey at the average speed of 16.8 miles per hour, and the half of it nearest to Paisley, where there were no obstructions, at the rate of twenty-one miles per hour. In running over the heaps of stone several wheels were smashed, and one so badly that the carriage was upset, the boiler was smashed and exploded, and five persons were killed. Upon this the trustees of the road, who had caused the damage, and should have been indicted for manslaughter, applied to the court of sessions, and got an interdiction to stop the whole five carriages from running. And thus ended the enterprise.

These acts of Parliament, and the refusal to amend them, and the violent proceedings upon the roads, and these malicious prosecutions, are strong presumptive evidences that the enemies of this invention did not deem it likely to die a natural death. Had they not feared that it would be successful, they surely would not have made an opposition that would be regarded as the cause of the failure, and bring upon themselves the execration of all who judged by the appearances of the case. But we have positive evidence that steam carriages could run profitably at half the prices of horse coaches. Sir Charles Dance states as much in a letter to Mr. Gurney, published in Mr. Gordon's Treatise on Locomotion. Mr. Farey, the well known author of a treatise on the steam-engine, after a thorough examination, stated to the Committee of the House of Commons his opinion that soon after their introduction they would work at a third of the prices of horse coaches; and all the eminent civil and mechanical engineers who were examined, were of opinion that they would work for less than half. Some of them thought they might work for a fifth.

It will be asked what motives could induce such opposition? Sir William Molesworth, in his place in parliament, said that the fear that steam carriages would supersede horses, and thus lower the demand for horse-feed, and the rent of land, was the motive of the landlords. This is not what we should expect from a body like the House of Lords, who are, by their adulators, represented as the most enlightened and liberal body of gentlemen in the world; but the fact that, for their own advantage, they kept up a system of corn-laws that kept the price of corn twice as high in England as it was upon the continent for thirty years, forces us to admit that they are capable of any capacity. They who are disgusted with the peculations of a republican

common council may console themselves with the reflection that it bears about the same relation to the wholesale operations of this irresponsible oligarchy, that petty larceny bears to highway robbery. As to stable-men, and the rest whose petty interests were in danger, their opposition was a matter of course.

Since the time of those experiments, the prices of small engines have been lessened, and their workmanship and plans very greatly improved. In 1840, Mr. Norris of Philadelphia made several engines for English railways, and has since made hundreds for railways on the Continent, in competition with English builders; showing that, even in this country, prices have long ago become cheaper than they then were in England. In the mean time plank roads have been introduced to the extent of many thousands of miles in this country; and these roads require less than half the motive power that is required upon the broken-stone roads upon which the English carriages worked. It is, therefore, probable that we shall find them more profitable than they were in England, even if we can do no better than to adopt their inventions, with such improvements in the execution and details, as the manufacture of locomotives has developed during the past twenty years.

It is, however, said that the railway has forever eclipsed the steam carriage. This fact is not clearly stated; it should be thus: iron roads have forever eclipsed roads made of soft and friable materials; and upon iron roads the steam carriage has attained such astonishing success that superficial observers are blinded by it, and do not see that this material, applied to the flat surface of the common roadway, with improved grades, will insure a still more brilliant success to light steam carriages; their speed will be as great as the railway steam carriage, which owes its origin and its best features to the common road carriages of Trevothik, Gurney, and others who preceded the present locomotive inventors. It is the level hardness of the rail, and not the colossal locomotive, that has given this advantage of three to one over horse power, and crowded passengers into mammoth trains, to prevent irregularity and collisions. A flat iron road would restore to us the convenience of the private carriage, and the accommodation stage, enhanced by the cheapness and speed of the locomotive.

But horses, and gravel roads, and plank roads are still used, notwithstanding the railway, that cavillers rest upon to oppose all other improvement. And while these roads lead to the houses of nearly all, the question should be, not whether steam carriages on common roads can compete with steam carriages on railroads, but whether steam carriages can compete with horses. This question is answered by Gordon's Treatise on Elemental Locomotion, by the Report of a select committee of the House of Commons on steam carriages, and by numerous articles scattered through the scientific magazines of the time. And the answer is positive,—they can run at less than half the cost of horses, and at twice the speed.

Thus far I have spoken of the inventions of others. I have now the more delicate task to speak of my own. I found the steam carriage confessedly heavy and deficient in elasticity. I endeavored to devise such a connection between the machinery and the wheels as would allow sufficient action of the springs to protect the machinery from injury by jolting, without deranging its action or producing a shaking that can disturb passengers. In this I have been so successful as to satisfy all who have favored me with their opinions. I found that two, and in most cases three, men were required to manage a carriage. I have been encouraged to believe that I have so arranged the details that one man can easily manage a carriage. I found that the principle of expansion was little used, or entirely neglected, so that it was necessary to carry heavy boilers and much water. I have devised a self-adjusting cut-off, so that

without the attention of the manager, the steam will be economized to the utmost, and a light boiler made to serve. I have made a connection between the steering wheels and the carriage that is thought to be an improvement; and, finally, I have invented a boiler which will be light and safe; and which, though it is not so easily judged of as the other parts, is deemed likely to work well.* I refer to reports of committees, published in Appleton's Mechanics' Magazine, Nov. 1851, in which the names of Messrs. Dunham, Copeland, Bogardus, well known as mechanical engineers, and Mr. James Stone, who built the machinery for Gurney's carriages, bear favorable testimony to my invention.

There is one point upon which I would touch. The steam carriage projectors have generally concurred in the expectation that some substitute for steam would be found, more convenient, if not cheaper. I have long entertained the same view. In Appleton's Magazine for October, 1852, I published an article in which I proposed to use compressed air, in connection with Capt. Ericsson's method of applying heat. The successful result of his engines confirms the view, and even encourages me to hope that it will not be necessary to take in compressed air at the stations. But the combination of the compressed air with his heaters is what I should first try, because the engines will be the same as for steam, and the reciprocating parts lighter than Capt. Ericsson's are made at present. Another reason is, that the combination will obviate the freezing which attends the use of cold compressed air, and yet not become so hot as to be inconvenient; an objection which, I fear, will attend caloric engines, unless they work at a pressure so low as to make them too bulky for carriages. I make this observation with a lurking hope that the ever active ingenuity which has already got over a multitude of difficulties, will also overcome this one.

There are various objections which ingenious but uninformed men are always stating against steam carriages. They won't go up hill without legs, toothed wheels, or something equivalent; they will smoke; they will make a noise like locomotives; they will fill the streets with steam; they can't be stopped quickly; can't be steered well; and so on without end. When I look at the patent contrivances to prevent the wheels from slipping, which even Gurney resorted to, until practice showed him that there was not the slightest need of them, I am not at all surprised at the doubts of mere imaginers, who never have investigated, nor even read the history of steam carriages. I therefore take every occasion to repeat that all these difficulties, imaginary and real, have vanished long ago. There is no smoke, visible steam, noise, nor any danger; they are, in all respects, more agreeable than horses, and entirely free from the danger of running away. Two cases, only, have occurred, in which persons have been killed by explosions; but these were with boilers on the principle of locomotive boilers, which are, in all respects, inferior to those of Gurney and Hancock, which have repeatedly been rent open without the least harm or even noise.

Should I have the good fortune to obtain means to build a carriage, I intend to try compressed air, cold, hot, and lukewarm. If it works better than steam, as I think it will, I shall use it; if not, the soda butt and old stove will be taken off, and a steam generator put on; that will work well, as we know by the experience of the English, and the loss by the experiment need not be fifty dollars. If it be shown that *any* elementary power is cheaper than horses, iron pavements, which are cheaper than macadamized roads, will be laid on the main routes; plank roads will be multiplied in the rural districts; and the improved roads, subject to little wear, will do for the steam carriage what good grading and iron rails have done for the locomotive.

Yours respectfully,

J. K. FISHER.

RAILROADS CENTERING AT CHICAGO.

In the May number of the *Merchants' Magazine* we published a detailed statement of the Trade and Commerce of Chicago during the year ending December 31st, 1852, and also for a number of years, furnished to our hands by the editors of the *Chicago Tribune*. By the same authentic source we are enabled to lay before our readers some account of the various lines of railroads centering at Chicago, which are now in process of construction. Four years hence, it appears by this statement, the city of Chicago will be opened to every part of Illinois, Iowa, and Wisconsin, and be made the commercial mart for the trade of nearly two millions of people.

There are twelve trunk railroads now completed or in process of construction, which make Chicago their terminating point, and nearly every such road has one or more branches or feeders. The trunk roads are:—

Michigan Central, to Detroit	Miles	280
Michigan Southern, to Toledo		245
Chicago and Fort Wayne		180
Illinois Central, to Cairo		351
Chicago and Mississippi, to Alton		280
Chicago, Aurora and C. M. Tract, to Quincy		220
Chicago and St. Charles Air Line, to Galena		160
Chicago and Galena, to Dubuque		200
Illinois and Wisconsin, to Fond du Lac		180
Chicago and Rock Island, to Rock Island		180
Chicago and Cincinnati		280
Lake Shore, to Milwaukee		90

Total number of miles of trunk roads

2,646

Of the above roads, the following is a statement of their present condition:—

MICHIGAN CENTRAL—Completed.

MICHIGAN SOUTHERN—Completed.

CHICAGO AND FORT WAYNE.—Contracts not yet let, but will doubtless be finished within two years, as the stock is nearly all taken. The Pennsylvania and Ohio, and Baltimore and Ohio roads, rely upon this line as an extension of their lines to Chicago.

ILLINOIS CENTRAL, to Cairo.—Under contract, and to be completed within two years.

CHICAGO AND MISSISSIPPI, to Alton.—78 miles completed, and 50 miles under contract. It is understood to be in the hands of Eastern capitalists, who will put the Northern division under contract as soon as one of the several lines already surveyed is settled upon.

CHICAGO AND ST. CHARLES AIR LINE.—Stock all taken by Eastern capitalists, and along the line. It is expected to have it completed to Savanna, on the Mississippi, 130 miles, in eighteen months, and shortly thereafter to Galena, 30 miles further where it terminates.

CHICAGO AND AURORA, AND CENTRAL MILITARY TRACT.—We class these two roads as one, though built by separate companies, for the reason that the C. M. Tract Road is a direct continuation of the line of the Chicago and Aurora. The whole is under contract from Aurora to Galesburg, in Knox county, 160 miles from Chicago, and will be completed by the 1st day of October. At Galesburg it connects with the Oquawka branch road, which will also be completed in October, and afford a direct route to the Mississippi, in Henderson County. The section between Galesburg and Quincy, the southern terminus, will doubtless be completed next year.

CHICAGO AND ROCK ISLAND ROAD.—One hundred miles completed, and the remainder under contract, to be finished by the 1st day of January, 1854.

CHICAGO AND GALENA.—Completed to Rockford, and the whole line under contract to Galena and Dubuque, and the work in a state of forwardness. The iron is also bought for the line, and will be laid down to Freeport by the first day of August. The section between Freeport and Dubuque is made a part of the Galena Branch of the Illinois Central Railroad, and is to be finished during the present year.

ILLINOIS AND WISCONSIN ROAD.—Contracts for the whole line to Janesville, and

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thence north to Fond du Lac, let to responsible contractors, the iron for 45 miles bought and partly on hand, and the work in a state of forwardness. The section from Chicago to Woodstock, in McHenry County, 50 miles, to be completed this year.

LAKE SHORE ROAD.—Stock all taken by responsible parties in Chicago and the East, and contracts will be let as soon as the line is located. It is expected to have it finished to Milwaukee some time next year.

CHICAGO AND CINCINNATI ROAD.—Sixty-six miles finished, and the grading nearly done, and iron all purchased for 108 miles more, between Richmond, Ind., and Logansport, on the Wabash River. Engineers are now engaged in locating the line between the latter place and Chicago, a distance of 105 miles.

These are all *trunk* roads, and we purpose briefly noticing the character of the country which they penetrate and open to our market, and the probable amount of the staple articles of agriculture they will each bring to our city yearly.

FORT WAYNE AND CHICAGO ROAD.—This is a western continuation of the Pennsylvania and Ohio Railroad, and is finished and under contract to Fort Wayne, 180 miles from Chicago. The line between Fort Wayne and Chicago will pass through Allen, Whitley, Kosciusko, Marshall, Porter, and Lake Counties, in Indiana—counties entirely devoid of railroad communication at this time, except what is furnished to the two last by the M. C. and M. S. Railroads. By this road, Chicago will draw all of the produce from a point as far east as Marshall County. From Porter and Lake Counties alone it will bring to our city 500,000 bushels of corn, wheat, and oats, beside a large amount of pork.

CHICAGO AND CINCINNATI ROAD.—This road is to run in almost a direct line to Logansport, on the Wabash River, and thence via Richmond to Cincinnati. Logansport is the center of a great corn and wheat region, and it is not doubted that that produce will come to this city. The present cost of shipping corn and wheat from that place to Toledo, by the Wabash and Erie Canal, is 12 cents per bushel, and thence by lake to Buffalo, 3 cents. From Logansport to this city the freight will not be over five, which gives to this market a decided advantage. Even though it do not draw from a point as far south as the Wabash River, the country between that point and this will produce surplus grain equal to full 500,000 bushels, which will find its way to this market. On the line of the road, sixty to eighty miles from here, there are immense beds of bog iron ore, lying upon the surface, and to be obtained merely for the trouble of taking.

ILLINOIS CENTRAL (to Cairo).—This road is all under contract to be finished within two years. It passes through the counties of Cook, Will, Iroquois, Vermillion, Champaign, Coles, Moultrie, Shelby, Fayette, Marion, Clinton, Washington, Jefferson, Perry, Franklin, Williamson, Union, Pulaski, and Alexander, and will be the channel for marketing all their products. It also passes near to, and will receive a portion of the productions of, Pratt, Edgar, Clark, Cumberland, Jasper, Effingham, Clay, Wayne, Hamilton, Johnson, Jackson, Union and Massac counties. All of the counties mentioned are rich in soil, and many of them are thickly populated. Their capacity for production is immense, though it has never been tested, for the reason that they are so far removed from market that the expense of transportation could not be borne. Within four years from this time, it is reasonable to presume that the surplus grain that will seek this market from these counties, over the Illinois Central Railroad, will equal 4,000,000 bushels, an amount far below the estimates of those engaged in building the work.

CHICAGO AND MISSISSIPPI ROAD.—This road passes through Will, Grundy, Livingston, McLean, Logan, Sangamon, Macoupin, and Madison counties, on an almost direct line from Chicago to Alton. If the business of the 78 miles, already completed, be a fair standard of judgment, it is not out of the way to estimate the receipts of grain in this city from it, at 1,500,000 bushels each year. The corn of McLean County is nearly equal to that amount, at this time.

CHICAGO AND ROCK ISLAND RAILROAD.—This road is now finished from this city to La Salle, 100 miles, and will be finished to Rock Island city in one year. We do not suppose it will be able to compete with the canal for the produce stored this side of La Salle, but from Henry, Bureau, and Rock Island, through which it passes, it will be the great channel of trade. At Rock Island, too, it will receive the produce of the richest part of Iowa. We have never heard an estimate below 2,000,000 of bush-

els of grain as the amount this road would bring to this city within two years after its completion.

CHICAGO AND AURORA, AND CENTRAL MILITARY TRACT.—This road passes through the counties of Du Page, Kane, Kendall, La Salle, Bureau, Stark, Knox, Warren, Henderson, McDonough, Schuyler, and Adams, and is contiguous to Mercer, Peoria, Fulton, Brown, Hancock, and Pike Counties—counties now containing over 200,000 inhabitants, and producing immense crops of grain. Knox and Bureau Counties alone, with moderate cultivation, will produce millions of bushels of corn, wheat, and oats. We estimate the surplus productions of these counties, to be marketed in Chicago, four years hence, at 2,500,000 bushels.

ST. CHARLES AIR LINE ROAD.—This road will be, to some extent, the competitor of the Chicago and Galena Road. It passes through Du Page, Kane, De Kalb, Ogle, and Carroll, to Savanna, on the Mississippi River, and besides being the channel for the trade of a portion of those counties, and to some extent, all of them, it will draw a large amount from Iowa. We estimate the amount of produce that will be brought to this city, by this road, at 2,000,000 bushels.

CHICAGO AND GALENA ROAD. We have some data for our estimates in reference to the future business of this road. Last year it was completed to Rockford—not half way to Dubuque—and the amount of flour, wheat, corn, oats, and barley, brought to this market by it, was equal to 2,162,141 bushels. Within one year it will be extended to the Mississippi River at Dubuque, and at Savanna—by the Savanna branch; also to Beloit, Janesville, and Madison, Wis., by the Beloit and Madison Branch Road; and also by another branch road, 34 miles long, extending from Elgin, up the valley of the Fox River to the Wisconsin line. If the present business of this road is nearly two and a half millions of grain, it is certainly not unfair to suppose it will be three millions, after its extension and branches are completed.

ILLINOIS AND WISCONSIN ROAD.—This road runs northwest through Cook, the western part of Lake, and the center of McHenry Counties, and thence to Janesville and Fond du Lac, Wis. McHenry County alone will send to market, over it, 500,000 bushels of grain, and it is not improbable that as much more will be made up by other counties, making 1,000,000 bushels altogether.

LAKE SHORE ROAD.—This road is designed for travel, and we are not confident that it will bring to our city any amount of grain.

Taking our estimates as reasonable, the amount of grain that will be brought to Chicago for shipment, four years hence, by the various lines of railroad, may be stated as follows:—

Illinois Central	bushels.	4,000,000
Chicago and Galena.....		3,000,000
Chicago, Aurora, and C. M. Tract		2,500,000
Chicago and Rock Island.....		2,000,000
Chicago and St. Charles Air Line		2,000,000
Chicago and Mississippi		1,500,000
Illinois and Wisconsin.....		1,000,000
Chicago and Fort Wayne.....		500,300
Chicago and Cincinnati		500,000
Total grain from railroads		17,000,000
Add present canal receipts		3,000,000
And we have as the probable gross receipts of every description of grain, by Chicago, in 1857.....		20,000,000

This may seem large, but it is our earnest conviction that the result will prove the estimate to be small. When the late Judge Henry Brown, in a public address in this city, in 1846, declared his belief that children were then born who would live to see Chicago with 200,000 inhabitants, and the State of Illinois with 4,000,000, it was deemed the conclusion of rather an active imagination; but were any one, at this time, to predict less than the Judge, he would be deemed a dull conservative, not adapted to this progressive age. For if Cincinnati has gained 120,000 inhabitants within 15 years, why may not Chicago, with its ten-fold advantages, gain 150,000 within twenty years?

PASSAGES OF CALIFORNIA STEAMERS.

The *Placer Times and Transcript* has obtained from the books of the Merchants' Exchange at San Francisco, the average passages of the different steamers plying between that port and Panama and San Juan, as far back as January 1st, 1852, and obtained the passages which each have made since that time.

The following list will show not only the number of days occupied by each steamer on their different passages from San Juan or Panama to this port, but the number of trips each has made within the last 17 months.

P. M. S. S. Co.'s Steamers.	No. of days each trip from Panama to San Francisco.					
	Golden Gate	John L. Stevens	Oregon	Panama	Northerner	California
Golden Gate	13	13	12	11	13	12
John L. Stevens	4	..	..	..	..	14
Oregon	14	16	16	15	16	15½
Panama	..	..	20	17	15	16
Northerner	14	17	18	16	15	16
California	16	17	15½	17	16	17
Republic	..	..	..	..	..	20
Columbia	..	..	..	..	17	19
Isthmus	..	..	..	..	23	21
Columbus	..	..	..	..	26	24
Carolina	..	..	..	..	..	..
Fremont	..	..	..	..	..	25
Constitution	..	..	..	..	..	..
San Juan Steamers.	No of days from San Juan to San Francisco.					
Sierra Nevada	..	..	..	..	..	14
Brother Jonathan	..	..	13	12	12	12
Pacific	14	12	13	13	13	15
N. Y. & C. Steamers.	No. of days from Panama to San Francisco.					
Cortes	..	..	15	16	14	14
Winfield Scott	14	14	17	18	14	14

The following table exhibits the number of steamers belonging to each line now plying along the Pacific coast, their tonnage, the probable average number of days occupied by each in making their trips to the port of San Francisco.

PACIFIC MAIL STEAMERS.

Names.	Captain.	Tonnage.	Average passage.
Golden Gate	C. P. Patterson	2,500	12½
John L. Stephens	R. H. Pearson	3,000	..
Oregon	A. V. H. Leroy	1,400	15½
Panama	W. H. Hudson	1,500	16
Northerner	J. B. G. Isham	1,500	16
California	R. L. Whiting	1,500	16½
Republic	Allan McLane	1,100	18
Columbia*	W. A. Dall	800	18½
Isthmus	T. A. Harris	900	22
Columbus	Ed. Mellus	800	24
Carolina	—	700	25
Fremont*	A. M. Burns	800	26
Constitution	J. M. Dow	800	..

NICARAGUA STEAMERS.

Sierra Nevada	J. H. Blethen	2,200	..
Brother Jonathan	C. H. Baldwin	2,000	12
Pacific	C. P. Seabury	..	13

NEW YORK AND CALIFORNIA STEAMERS.

Winfield Scott	..	..	14
Cortes	..	..	14½

* Now plying to Oregon.

STATISTICS OF LIFE AND DEATH ON THE RAILROAD.

It is stated that the number of persons killed or injured on the railroads of New York, during the last year, was six or seven times greater, in proportion to the whole number conveyed, than in the United Kingdom of Great Britain and Ireland. The following comparison of the casualties upon the railroads of both countries, during the year 1852, condensed from the latest official returns, exhibits at a glance the great inferiority of New York railroad management:—

	Great Britain.	New York.
Number of passengers	89,185,729	7,440,653
Passengers killed	32	26
Employees killed	120	60
Others killed	64	162
	—	—
Total killed	216	228
Passengers injured	380	82
Employees injured	79	89
Others injured	27	94
	—	—
Total injured	486	265
Total killed	216	248
	—	—
Killed and injured	702	513

This table, when analyzed, will show the following comparative statement of casualties upon the railroads of the two countries, in proportion to the whole number of persons traveling:—

	Great Britain.	New York.
Passengers killed	1 in 2,785,491	1 in 286,179
Employees killed	1 in 742,797	1 in 124,010
Others killed	1 in 1,392,714	1 in 45,929
Passengers injured	1 in 254,568	1 in 90,739
Employees injured	1 in 1,128,427	1 in 83,603
Others injured	1 in 3,301,323	1 in 79,155
Total killed	1 in 412,665	1 in 43,454
Total injured	1 in 183,406	1 in 28,078
Killed and injured	1 in 126,873	1 in 17,425

PROGRESS OF RAILROADS IN THE UNITED STATES AND EUROPE.

According to Mr. Kennedy, the late Superintendent of the Census, the following was the condition of affairs on the 31st of December, 1851:—

Cost of completed roads in United States	\$372,770,000
Probable cost of those in progress	220,000,000
Total	\$592,770,000

An immense sum, it is true, and yet not so great when the vast results are considered.

For the purpose of comparison with the foregoing, the subjoined statement has been prepared, showing the number of miles of railroads, with their cost, according to the most generally received authorities in all the countries of Europe in which those improvements have been to any considerable extent introduced:—

	Miles.	Aggregate.	Cost per mile.
Great Britain and Ireland	6,890	\$1,218,000,000	\$177,000
German States, includ'g Prussia & Austria	5,332	325,875,000	61,000
France	1,018	238,900,000	254,000
Belgium	532	46,283,000	49,000
Russia	200	15,000,000	75,000
Italy	170	15,000,000	88,000
	—	—	—
Total	14,142	\$1,859,068,000	

The preceding table was made before the opening of the railway from St. Peters-

burg to Moscow, which, being 400 miles in length, would add largely to these statistics so far as refers to Russia. In France also, during the past season, 1,500 miles of railway, in addition to the number stated in the table, were opened, making the whole extent of railway in that country, in July last, about 2,500 miles; and it is expected that during the ensuing year, 1,800 miles additional will be completed.

By these statistics it is made to appear that the average cost of European railroads was \$130,800 per mile. The average cost of American railroads completed previous to the commencement of the present year, was \$84,307 per mile. The excess of expenditure, therefore, in the construction of European roads over those in the United States, is \$95,993 per mile, or about 280 per cent; but it may be remarked that the estimated average cost of construction in the United States of all the roads completed and in progress does not exceed \$27,300 per mile, so that the actual excess is \$103,000 per mile.

The foregoing statements develop the striking fact that the United States possess an extent of railroad nearly equal to that of the rest of the world combined; and, at our present rate of progression, we are likely in a few years far to exceed it.

But still later. On the 1st of January, 1853, the aggregates with regard to railroads in the United States were as subjoined:—

Miles in operation	12,226
Miles in progress.....	12,681

On the 1st of January, 1852, the results were as follows:—

Miles in operation.....	10,843
Miles in progress.....	10,898

These facts display an extraordinary increase. The following table shows the number of miles of railroad in operation, and in course of construction, in each State of the Union, on the 1st of January, 1853:—

State.	No. mls. in operation.	No. mls. in progress.	Total.	State.	No. mls. in operation.	No. mls. in progress.	Total.
Maine	394	111	505	Florida	23	...	23
New Hampshire	500	42	542	Alabama	236	728	964
Vermont	427	...	427	Mississippi	95	875	970
Massachusetts	1,140	66	1,206	Louisiana	63	200	263
Rhode Island	50	32	82	Texas	32	...	32
Connecticut	627	198	825	Tennessee	185	509	694
New York	2,123	924	3,047	Kentucky	94	661	755
New Jersey	254	85	339	Ohio	1,385	1,755	3,140
Pennsylvania	1,244	903	2,147	Indiana	755	979	1,734
Delaware	16	11	27	Michigan	427	...	427
Maryland	521	...	521	Illinois	296	1,772	2,068
Virginia	624	610	1,234	Missouri .....	...	515	515
North Carolina	249	248	497	Wisconsin	50	470	520
South Carolina	599	296	895	Total.....	13,266	12,681	25,947
Georgia	857	691	1,548				

RAILROAD PROGRESS IN THE SOUTHERN STATES.

The progress of the railway system in the South is briefly yet satisfactorily exhibited in the following article from a cotemporary:—

Virginia is extending its lines from the seaboard to the Ohio and the Tennessee; on the one hand by the Covington and Ohio Railroad toward Cincinnati, Louisville, Chicago, and St. Louis, and on the other hand by the Virginia and Tennessee Railroad and its connections toward Knoxville, Chattanooga, Nashville, Memphis, and the whole Southwest. Already its complete roads measure six hundred miles, and those now in progress six hundred miles more.

North Carolina, too, is pressing on toward the West, and forming connections with the great lines of Virginia by the Roanoke Valley Railroad, and with those of South Carolina by the Central Railroad, uniting with the Charlotte and South Carolina Railroad near the State line; and the Wilmington and Manchester Railroad opens to its chief port the riches that erstwhile have raised Charleston to its lofty position. The

completed lines in this State measure two hundred and eighty miles, and those progressing some five hundred miles additional.

In South Carolina and Georgia, from Charleston toward Mobile and New Orleans, and toward Nashville and Memphis, the lines within this State are complete. In the northern part of this State but few places are wanting in railroad accommodations. Soon she will scale the Blue Ridge. Georgia has two lines crossing the State and uniting with the roads of Tennessee and Alabama, and two others are in progress; the one from Savannah to Albany on the Flint River, and the other from Brunswick to Tallahassee and several points in the Southwest portion of the State.

The Atlantic and Gulf Railroad, in Florida, is a grand conception, and will form the highway of a Commerce now endangered by the treacherous shoals and rocks of her Southern point. Other railroads will seek her harbors, from Montgomery, from Oglethorpe, and other points north of her western territorial extension.

DIVIDENDS ON RAILROAD STOCKS IN BOSTON.

We give below a statement of the dividends paid or payable on Railroad stocks, in July, 1853:—

	Capital.	Dividend.	Amount.
Berkshire.....	3,205 shares,	\$1 $\frac{1}{4}$	\$5,600
Boston and Lowell.....	1,830,000	3	54,900
Boston and Maine.....	4,155,700	4	168,228
Boston and Providence.....	3,160,000	3	94,800
Boston and Worcester.....	4,500,000	3 $\frac{1}{2}$	157,500
Cape Cod Branch.....	5,000 shares,	\$2	10,000
Cheshire (preferred).....	21,482 shares,	\$2	42,964
Eastern.....	2,850,000	3	85,500
Eastern, N. H.	492,500	3	14,775
Fall River.....	1,050,000	4	42,000
Fitchburg.....	3,540,000	3	108,200
Lexington and West Cambridge (preferred)...	120,000	3	3,600
Manchester and Lawrence.....	800,000	3 $\frac{1}{2}$	28,000
Pittsfield and North Adams.....	450,000	3	13,500
Rutland (6 per cent preferred).....	575,000	3	17,250
Stoughton Branch.....	85,400	3 $\frac{1}{2}$	2,989
Taunton Branch	250,000	4	10,000
Western.....	5,150,000	3 $\frac{1}{2}$	180,250
Worcester and Nashua.....	1,800,000	2 $\frac{1}{2}$	40,500
			\$1,076,564

ERICSSON'S CALORIC ENGINE.

A late number of *Silliman's Journal of Arts and Sciences*, contains an investigation of Ericsson's Caloric Engine, by WILLIAM A. NORTON, Esq. The conclusions of the author are thus summed up:—

1. That Ericsson's Hot Air Engine, as compared with the condensing marine steam engine, in its most economical operation, has shown the ability to do the same work with the use of from one-sixth to one-third less fuel; and, that if its full estimated power should hereafter be developed, the saving effected would be 70 per cent.
2. That for the same actual power, its weight is about three times as great as that of the marine steam engine, and that in case its estimated power should be obtained, its weight would be as much as 30 per cent greater.
3. That, in respect to the space occupied by the engines and coal, the advantage is decidedly in favor of the steam engine.
4. That the great weight of the engine, in proportion to the power developed, must prevent, for the present, the realization of a high speed in the propulsion of vessels. At the same time it is to be admitted that the full estimated power is adequate to the production of high velocities. Time alone can decide the question, whether or not this maximum power is really obtainable.
5. The great weight of the engine, and space occupied by it in its present form, will, in all probability, prevent its adoption for the purpose of inland navigation and railroad locomotion, in preference to the steam engine. If used as a land engine, the

features will be less objectionable; accordingly it is only in this form of application, and in those cases of marine navigation in which speed is likely to be sacrificed to economy of fuel, that the caloric engine may be confidently expected to achieve decided triumphs over the condensing steam engine.

Although this discussion has brought us to the conclusion that the new motor is not likely to equal the extravagant expectations which are so widely entertained with regard to its capabilities, still it must be freely conceded that the invention of a new engine in respect to which a just claim to superiority over the steam engine can be asserted, in any particular, is a great achievement, and that the ingenuity and mechanical skill displayed in the invention and construction of the Caloric Engine cannot be too highly extolled.

STEAMBOAT BUILDING IN PITTSBURG.

For the half year ending on the 1st inst., there were twenty-six steamers built and registered at the port of Pittsburg, comprising an aggregate tonnage of 5,689 91-95. During the month of January there were entered at the Custom-house two steamers, in February two, in March seven, in April five, in May three, and in June seven. There are now five in the course of completion within the city limits, and fifteen in various yards near the city. Within the same time, ten keels, flats, and barges, have been built and registered.

JOURNAL OF MINING AND MANUFACTURES.

THE STATIONERY BUSINESS IN NEW YORK, AND THE MANUFACTURE IN THE UNITED STATES.

The stationery importing business in the city of New York amounts to a very considerable figure, there being but little foreign stationery brought into the United States other than what comes to this port.

The principal importers in the city are Messrs. Herts Brothers, R. Bainbridge & Co., Basset, Aborn & Mosley, Ames, Herrick & Barnes, Wm. A. Wheeler & Co., Mark Levy & Brother. The value of the merchandise imported by these houses amounts, from England, to \$1,200,000 per annum, comprising principally laid and wove papers envelopes, parchments, drawing and Bristol boards, &c., &c.

The value imported from France and Germany per annum is \$1,500,000, which is principally in fancy articles appertaining to the stationery business, such as fancy note papers and envelopes, papier-mâche articles, letter clips, inkstands, paper weights, and an indefinite list of other articles.

Metallic pens form quite a large item in this list. Of these, Herts Brothers and Joseph Gillott are the largest importers in the United States.

The amounts above stated are according to an estimate made by Herts Brothers, and are no doubt near the figure, although differing widely from the statements of the treasury commercial report. In the official statements for the year ending June 30, 1851, the total amount of the imports of paper and articles of the manufacture thereof into the United States—the list embracing antiquarian, imperial, super-royal, royal, &c., medium, cap, demy, and other writing papers, folio and quarto post, bank and bank-note paper, binders', box, pasteboards, &c., copper-plate printing and drawing paper, playing cards, articles and wares of papier mache, paper hangings, paper and fancy boxes, blank books, and manufactures of paper unspecified—is given at only \$947,971.

The firms named have also, in connection with their transactions in foreign stationery, a very large business in papers and envelopes manufactured in this country, of the

rise and present condition of which manufacture it may not be amiss to give a brief notice here.

It was about 1725 that paper mills were first set up in the colonies, the manufacture being commenced nearly simultaneously in New England and Pennsylvania. To encourage the adventurers in that province, the Assembly of Massachusetts Bay granted, by act, to Daniel Henchman and others the right of making paper, on condition that within fifteen months they should make 140 reams of brown and 60 reams of printing paper. But as this was one of the articles which England could supply to the colonies, the home government was very decidedly opposed to the attempt of Massachusetts Bay to make it for herself. It was a source of much and long-continued grief to the statesmen of the mother country, that instead of confining their efforts to the production of agricultural articles, naval stores, &c., the perverse provincialists would persist in making paper, along with hats, articles of iron and other metals, sundry cloths, &c.

The manufacture of paper, however, continued and increased up to the Revolution, and was, of course, much stimulated at that period, first, by the attempt to tax it—the protests and arguments against which must alone have consumed many reams; the people, seeing their right of *free writing* invaded, vindicated the right by unwonted chirographic indulgence, and all upon unstamped paper. Second, by the vast number of political tracts, and other publications elicited by the general controversy; and third, by the cessation of imports during the war.

In 1791, Hamilton, in his report on manufactures, states the domestic manufacture as sufficient to supply in a considerable degree the wants of the country, and it appears that there were, about that time, 48 paper mills in operation in Pennsylvania.

In 1810 the value of paper made in the country was about \$2,000,000, about which time a deficiency of raw material, from whatever cause, began to be experienced, and the manufacturers were obliged to resort to Europe for supplies of rags. Up to 1820, although the number of mills increased in proportion to the increased amount of book and newspaper printing, very little improvement was made in the manufacture, either by the introduction of superior machinery to that before used, or otherwise.

Between 1820 and 1830 efforts were made, with rather indifferent success, to introduce machinery such as was then in use in several European countries. About 1830, however, machines answering the desired purpose were made in Massachusetts and Connecticut, and soon came into general use. From that time, the advance in the paper manufacture has more than kept pace with the increased demand from the rapid enlargement of the newspaper, book publishing, and job-printing business. The improvement has extended as well to quality as quantity, and it is thought that the finish of American papers is now equal to any in the world.

The federal government has always sought to encourage the manufacture of paper, by a duty laid for protection, and, until the tariffs of 1842 and 1846, by admitting the raw material free. The former tariff laid a specific duty of one-quarter of a cent per pound on rags, and the latter an ad valorem rate of 5 per cent.

With the extension of the manufacture in the United States, the import gradually decreased from the organization of the government downward until about 1846, when it was supposed that, excepting paper hangings, the total import of papers was not above *two per cent* of the amount consumed in the United States. Since that time, however, there has been a large increase in the import of several kinds of paper.

The value of paper made in Connecticut in 1852 was, according to Pitkin, \$546,000. In 1840 it was, by the United States census accounts, \$660,500. There were in 1840, in the United States, 426 paper making establishments, employing a capital of \$4,745,239, and 4,726 men, and yielding an annual product of \$6,153,092. Massachu-

setts had 82 of the mills, and furnished \$1,716,630 of the product. The value of rags imported into the United States in 1832 was \$466,387, and in 1851 there were imported 26,094,071 lbs., valued at \$903,747. These rags are brought chiefly from Italy and Trieste.

Within the last ten or twelve years there has been a larger proportional increase of mills in the Middle and Western States than in the Eastern, but Massachusetts and Connecticut still supply much the largest portion of the domestic papers sold in New York.

The envelops of home make sold in New York are mostly her own. Mr. Geo. H. Bell is the principal manufacturer, employing fifty hands, and turning out sixty millions of envelops per annum.

The increase of imports may be in part due to alterations of the tariff, but is probably quite as much the effect of the increasing circulation of cheap books and cheap newspapers, conjoined with the late reductions in the rates of postage. Apart from the greater amount of paper consumption in printing thereby occasioned, the intelligent effect has had a wonderful influence upon the use of writing paper, metallic pens, ink, and envelops. Without inquiring how much the demand for foolscap has been augmented by the enlargement of the class of authors, published and *unpublished*, the effect upon the *social literature* of the country has been most astonishing. The people have become a body of letter-writers—we are a nation of correspondents. We are the most locomotive people in the world; and wherever we go, the sealed missives are perpetually flying to and fro upon our track. Journeying, even alone, has lost most of that idea of separation and lonesomeness which once attached to it. We remove days' journeys from others, and yet seem to be almost in their very presence. Uncle Sam has found every step in the way of cheap postage completely successful, and has ample encouragement to undertake even the penny idea. Let him go on; there is no simpler method of increasing the happiness and comfort of a people than by enlarging the use of writing materials among them; and there is hardly a better measure of the prosperity of a people than is afforded in the statistics of its stationery consumption.

THE MINING MAGAZINE.

This is a new publication, the first number of which was published on the first of July, by WILLIAM J. TENNEY. It is devoted exclusively to the mining interests of the country. The first paper is a brief introduction by the editor, stating the plan and objects of the work, then follows "The Report to the Legislature of California, on the Geology of the Sierra Nevada, by Prof. John B. Trask; the first of an important and valuable series of articles upon the "Mines and Mineral Resources of America," commencing with the New England States, and giving the minerals of each successively; "The Report on the Shelburn Lead Mine in New Hampshire," by Prof. James T. Hodge; an article on the "Cumberland Coal Region," in Maryland; and the "Report on the Mine of the North Carolina Copper Company," by Dr. Chas. T. Jackson.

The papers occupy the first portion of the number, after which follow journals of the mining laws and regulations of various companies; of gold mining operations, of copper mining operations, of silver and lead, of iron and zinc, of coals and collieries, of quarries, and concluding with miscellaneous articles of interest, besides a monthly review of the commercial aspect of the mining interest of the country.

The value of a work of this kind to the mining interest, and to those who desire information relative to the resources of the United States, cannot be too highly appreciated.

ciated. It is designed to serve as a standard national work on the subject, which may be referred to with certainty and confidence, for counsel and direction. In the hands of its experienced and able editor, we can recommend it as a work worthy of the support and approbation of the public. It is issued in a very handsome style, and important mining operations are illustrated with well executed cuts. The subscription price is five dollars per annum.

THE METALS OF THE SIERRA NEVADA.

We take the following extracts from Prof. Trask's report, recently made to the Legislature of California, on the geology of that great mountain range that forms the eastern boundary of that State:—

QUARTZ MINING.—of the quartz formations the Prof. says:—"The comparative range of country which they pass through, cannot be considered as amounting to more than 1-12th of the width of the mountain range. The area that it occupies is also very small compared to the rocks they pass through, being composed of small veins and dikes, cutting other formations, both igneous and sedimentary. The largest masses of the rock are found in form of dikes, which are at times nearly continuous above the surface for miles—in other cases interrupted at short distances. The largest ever observed by the author did not exceed forty yards in width, while the principal formation adjacent, and through which it passed, was nearly as many miles."

Alluding to the idea heretofore entertained that all metallic veins are referable to one age, which is now found to be incorrect, it is said—

"That the value of these veins will be found in the relative age which they maintain to the rocks with which they are found in connection, being modified as their passage is found to be through igneous or sedimentary rocks.

"This suggestion is made, in the hope that less disappointment may be experienced by those who seek a profitable and laudable employment in those branches of industry, and also to check, in some measure, those hasty and inconsiderate generalizations, that once promised to blast the most brilliant prospects of the State. Two years since, this opinion was maintained and also made public, and the estimate then made of the probable fate of a large portion of those who had embarked in these speculations was predicated, in part, on these grounds. How far that prognosis has proved true, the public can best judge. Another, and an important point in this subject, is the association of the metal with other minerals in the vein. A large portion of the gold in these veins is frequently combined with other minerals, most of which are of a compound character—as the oxides of iron, and also its sulphurates (pyrites).

"It must be seen, then, that one general and indiscriminate treatment of ores must not only prove annoying in the results that are obtained, but highly disastrous in the extraction of the metal, for the process that would relieve the metal in one case, would only serve to fix its investing matrix more closely in the other. Hence has arisen much of the discredit to this branch of mining, and pecuniary losses. This has been sustained from the neglect in making the necessary selections of ores from the same vein, and applying the same treatment for each variety. The experiment in this branch of mining of the past eighteen months, has demonstrated too truly and sadly, that those methods heretofore adopted cannot be pursued with profit, but on the contrary, that certain loss must be the result of this system, too hastily entered upon, and too thoughtlessly pursued in whatever branches of industry it may be applied.

"But, from the failure that has been experienced in this case, it would be unjust ever to infer that these metallic rocks do not possess the equivalents of wealth that a reasonable estimate has placed upon them, by men whose judgments have been unbiased and unanswered by the overheated infatuation that has too often prevailed here and elsewhere, in relation to this subject. The best proofs of fast returning confidence in these richest of our resources, is found in the large amounts of foreign and home capital, that is now seeking opportunity of investment in them, showing most clearly that the denunciations that have been piled upon them were based upon false premises, and are so considered abroad. In addition to this, a local demonstration goes to support this position, and exerts a widespread influence, which serves to give weight to the above. It is known that parties who have suffered severe losses by

embarking in these operations, still feel confident of success, and still hold those veins, feeling fully assured of their real value, although with their present means, they are unable to proceed at the present time with success.

"There are but few of these veins that can be purchased from the original holders for anything like moderate prices, and those that are in second hands are equally firm. No truer barometer of public opinion of their value can be found."

PLATINUM.—This metal appears as widely distributed as gold, and there is scarcely a section of the country, in which gold has been found, but that this metal has also been discovered. This fact would lead us to suppose that, from the commercial value of the metal in its crude state, being about one-half that of gold, it may at some future day be sought for as an article of commercial export, among the exhausted placers of the country. It is to be regretted that a more intimate acquaintance with this metal, among those engaged in the mining districts, does not exist, as I feel fully confident that the value of our mines would be enhanced nearly 25 per cent by its collection.

A description of the metal would not lead to its detection, as it is so frequently combined with other minerals that closely resemble it, and would be easily overlooked. We shall, therefore, dismiss it by noticing the localities where it has been observed.

It occurs on Salmon River, in the drift that contains the gold, in small round grains of a steel grey; also on the South Fork of the Trinity, about eight miles from its junction. On Butte Creek, near Reeves' Bar. On Honcut Creek, embedded in gold, between the North and South Forks, and also in the places between there and Feather River. On Canon Creek of Butte County; on Middle Fork of American River; on Calaveras River, associated with small garnets in the drift; on Wood's Creek; at Gold Flat, Nevada, with iridium and osmium, and small crystals of rutile at the bottom of the shafts.

This wide dispersion of this metal, through this country, would indicate that at some future day it may be made a source of profit.

SILVER.—This metal has been found in several of the mines that have been opened in this State, all of them, thus far, situated in the southern district. It was first met with in a distinct vein, running parallel with a vein of gold, in the South Carolina mine, at Carson Hill. At this place I obtained a fine specimen. I was informed of its being found in the Old Dominion mine, beside the above, and north of it, and also in the Relief mine, south of it. The New York Mining Company, on the opposite side of the River at Eagle Hill, was the next in which it made its appearance. At the Chilean mine, two miles north of Columbia, it occurs, associated with copper and gold in quartz in the form of sulphuret; also Frazer's mine, twelve miles east of Sonora, with galena and zinc-blende in the same rock. At these localities it is generally disseminated through the quartz.

At the Washington and Georgia mine, Quartzburg, in Mariposa County, I observed this metal in the form of ruby-blende, in the vein-stone containing the gold, and when the metallic gold appeared, it was a little lighter in color than common, evidently from a slight alloy of the two metals.

This metal, in other countries, has proved a great and important source of wealth. From its casual occurrence in our mines, and its evident tendency of increase, as you advance south from the Stanislaus, there is just reason to hope that it may, in this country, become the source of wealth and profit.

COPPER.—This metal is much more widely distributed than silver through the western flank of the range, and it is believed also to exist in large quantities in the coast range.

CHROMIUM.—Particular attention is called to this metal, so valuable as a pigment, which, from its appearance in large quantities in some sections of the State, and the extensive distribution of the serpentine rocks to which it is incident, it is believed will prove an important source of wealth.

The high prices of the various manufactures from this mineral, cannot fail to attract attention to its further development; and I feel that the value of the mineral will be sustained, when we say that its market price in the state of rough ore, will equal the product of our best ores of gold in their average, being about \$80 per ton. It has maintained this price very uniformly for a number of years.

This mineral is found in veins and masses, running through serpentine rocks. These masses are often large, weighing from 60 to 80 pounds, and smaller, and generally disseminated through the rock and upon its surface.

The finest specimens the author has ever seen, have been found in this country, and

in some localities in large quantities. A striking feature in the country that abounds in this mineral, among the serpentine formations, is the peculiar bareness of the immediate district compared to other surrounding sections, and an individual once observing it would scarcely fail to recognize its characteristics, even at a considerable distance.

The principal localities that have been observed as abounding in this mineral, are upon Nelson Creek, near its junction with Feather River, in fragmentary masses. On the ridge, between the North and Middle Forks of the American, in small fragments; on Bear River, four miles above Anson's Ferry; in the Coyote Diggings, near Nevada; and on Deer Creek, two miles below the city of Nevada.

It is at this last named locality that its attendant peculiarities may be most conveniently studied. It occurs here in large amorphous masses of 20 to 60 pounds weight, scattered over a low range of hills of some four to six miles in extent. The mineral would be easily mistaken by the passing traveler, for large fragments of some of the darker trap rocks or dark porphyries.

WAGES OF THE SHIRT SEWERS IN NEW YORK.

“With fingers weary and worn,
With eyelids heavy and red,
A woman sat, in unwomanly rags,
Plying her needle and thread.
Stitch—stitch—stitch!
In poverty, hunger, and dirt;
And still with a voice of dolorous pitch
She sang the ‘Song of the Shirt.’”

Hood's “Song of the Shirt.”

We agree with a cotemporary, that there is no class of workwomen who are more entitled to our sympathy and encouragement than the shirt sewers, for there are none who are more poorly paid for their work, or who suffer more privation and hardship. Much has been written about them, but we believe that no detailed description of their actual condition has before been presented to the public. It is a shame to the commercial system of the nineteenth century that a class of operatives should be so poorly paid for their labor. In publishing the following brief account, the *Herald* relates, we are assured, only what the writer has seen and known from investigation:—

THE WAGES OF SHIRT SEWERS—HIGH PRICES AND LOW PRICES.

So far as we have pursued our investigations into the condition of the industrial classes of New York, we know of none who are in a more destitute state, or who are paid less for their work, than a large proportion of the shirt sewers. Their number is estimated at five thousand, and of those about one-fourth do not earn more than one dollar and a half a week at the utmost, while a still larger proportion cannot make more than two dollars. There are a few whose weekly wages amount to four, five, and sometimes as high as six dollars, but not more than one out of every ten can earn so much. The average weekly earning of each shirt sewer is about two dollars and a half a week, a sum barely adequate to the support of one person. Some of the work at which they are employed requires as much, if not more skill, than any other, with the exception of embroidery. We have seen shirts in which there were at least twenty yards of fine stitching and sewing; and for one of these, which would require two days to make, the sewer had received only one dollar and a half. This is considered remarkably good pay; but when we contrast it with the price paid for other work, which is not by any means so laborious or unhealthy, it appears insignificant. For making a coat a good tailor is paid five dollars, which he can earn in two days; while, at work which requires more neatness, a woman, who has perhaps a family to maintain, cannot make more than a dollar and a half, and to make even that, she must work twelve or fourteen hours a day.

There are, properly speaking, two classes of shirt sewers—one for coarse and the other for fine work. The former receive the lowest prices—from one to two dollars, while the latter earn three, four, five, and six dollars, according to the amount of work they are capable of doing. Why there should be such a great disparity between their wages we cannot determine. Coarse shirts are easier made than fine ones, and a smart sewer can finish three in one day; but it takes two days to make one fine shirt. The cost of a fine shirt varies from two dollars and a half to four dollars,

while a coarse one can be purchased at almost any retail store for eight or ten shillings. Now the profit realized on two or three of these is much larger than that obtained from the sale of a fine shirt, except where quick sales and small profits are more desirable, yet the woman who makes them does not get more than one half the price given for fine shirts.

The following table presents the prices paid by different establishments in New York:—

For collars.....	.....per doz.	8s.	7s.	6s.	5s.	3s.	9c.
For wristbands .....	.....	6s.	5s.	4s.	3s.	2s.	18c.
For bodies .....	.....	4s.	3s.	2s.	1s.	..	4d.

For finishing the shirt—that is, sewing all its parts together—from twenty-five cents to a sixpence is paid.

There are four kinds of needlework on shirts—the first is called plain sewing, and consists simply in making the bodies; the second is called stitching, and requires considerable neatness—the breasts, wrists, and collars, are stitched; the third is the finishing process, in which there is a great deal of gathering to be done, besides the stitching of the button holes and the sewing on of the buttons; the fourth is embroidery. In some stores they give the entire shirt to one person to make, while in others they distribute them in parts, and classify their sewers into body makers, stitchers, finishers, and embroiderers. There are few of this latter class, but we believe they are paid better than any of the others. Their work is said, by those who have been engaged in it, to be more pleasant than stitching, which is regarded as the most tedious and injurious to the sight. Some of these embroidered shirts sell for twenty dollars, but the average price is ten, and some of inferior workmanship can be procured for less.

COAL TRADE OF ENGLAND.

The British Parliamentary return, No. 340, last session, records the export of coal from Liverpool as below:—

	Coastwise.		Foreign.		Total.	
	Tons.		Tons.		Tons.	
1800.....	117,209		260,943		378,152	
1851.....	115,904		255,256		371,160	

The exports to foreign countries during the last two years, as abstracted from the Liverpool Custom-house returns, was as follows:—

	1851.	1852.		1851.	1852.
	Tons.	Tons.		Tons.	Tons.
North America	74,729	99,637	Portugal	8,719	7,039
South America	40,560	44,695	Africa	6,771	3,722
Mediterranean	44,862	41,132	Australia	4,056	13,482
East Indies	28,521	27,101	Baltic	1,760	2,929
West Indies.....	14,988	15,805	Channel Islands.....	980	706
France	17,912	9,910	Total.....	249,917	270,228
Spain	6,059	4,070			

The Lancashire coal field produces about 4,000,000 tons annually—viz., in the Wigan district, 2,000,000; Bolton, 1,000,000; and St. Helen's, 1,000,000; altogether covering an area of 600 square miles. The cost of getting and raising it to the surface in Lancashire averages less by 1s. 6d. per ton than it does in Newcastle and Durham districts; the average depth of the pits being only 875 feet here, against 1,500 feet there. The average cost of carriage from the Lancashire pits to Liverpool, distance 24 miles, is 2s. per ton, being 9d. per ton less than from those of Northumberland and Durham to the eastern seaports. The varieties of coal found in Lancashire are said to exceed in number those found in Durham and Northumberland, which amount to 175, whilst the quality is almost equal to it, especially for household purposes, and very much superior to it for the manufacture of gas. The coal traffic of Great Britain is the largest of any description of traffic in the world, and the capability of supply is unlimited. There are 3,000 coal mines, affording employment to 250,000 men, women, and boys. The capital invested in working stock, tramways, staiths, and harbors, exceeds £30,000,000; and the "get of coal" amounts to upwards of 34,000,000 tons annually, the value of which, at the pit's mouth, is estimated at £10,000,000.

THE CHARACTER OF AMERICAN JEWELRY.

A correspondent of the *New York Times*, writing from Paris, and praising a regulation of the French Government, which requires that articles manufactured of gold shall bear the stamp of the Mint, as a certificate of their genuineness, states that in consequence of this, the standard is so pure that American gold articles are nearly worthless in Paris, and tells the following stories, which, if true, are worthy of general circulation, as a caution to purchasers of articles made of the precious metals, letting them know that "all is not gold that glitters," and, if false, should be contradicted from some responsible quarter:—

"I remember to have bought an article in Broadway, which pretended to be genuine, and I have no doubt it was so, as much as anything of the kind sold there. I paid five dollars for it, and for curiosity sake, had it proved at the Mint here some time afterward. They told me there was \$1 80 worth of gold in it. The work upon it was very slight. I consider all articles pretending to be gold, manufactured in America, as very indifferent stuff. And I may say the same of silver articles. A gentleman, many years ago, ordered a silver milk-pitcher of one of the houses of Boston, and he stipulated that it should be made of United States half-dollars. The bill guaranteed that it was so made. Well, this milk-pitcher has since come to Paris, and has been assayed here. The Assayer, who is a sworn officer of the Mint, gave its value in metal as just one third of the price that had been paid for it. He thought that there were no half-dollars in it. I may add that the firm which furnished this article is one of the very highest respectability."

DIVIDENDS ON MANUFACTURING STOCKS IN BOSTON.

A table of manufacturing companies paying dividends in July, 1853, showing the amount of dividend, etc.:—

Manufacturing Companies.	Capital.	Dividend.	Am't.
Chicopee	700,000	2	14,000
Cocheco	2,000 shares.	\$30	60,000
Contoocook	140,000	15	21,000
Douglass Axe.....	100,000	8	8,000
Lancaster Mills.....	2,000 shares.	\$18	36,000
Lowell	2,900 shares.	\$30	87,000
Middlesex	1,000,000	3	30,000
Nashua.....	1,000,000	3	30,000
Naumkeag	700,000	5	35,000
Perkins	1,000,000	2	20,000
Salmon Falls.....	1,000,000	3	30,000
Sandwich Glass.....	300,000	5	15,000
Stark Mills.....	2,250,000	4	50,000
			\$436,000

MINING LAW IN AUSTRALIA.

Some months ago the British government transferred the control over the Australian gold mines to the legislature of that country, giving the local government the right to fix the rates at which licenses to work in the diggings should be granted to miners, &c., and we believe, allowing whatever revenue might be realized from this source, to be used in maintaining the colonial government. Previous to this transfer of power, the miners, whether resident or foreigners, were taxed about thirty shillings (\$7 50) per month each for the privilege of mining. Now, however, a new license law is in force, which taxes foreigners *sixty shillings* (\$15) per month, and continues the former price for citizens of the country. This act has caused great dissatisfaction throughout the diggings, as all the miners required a modification of the old law. Meetings have been held at which resolutions, memorials, &c., have been adopted, urging the governor-general to call an extra session of the legislature, to repeal this odious enactment. Among other reasons for repeal it is asserted that the new act seeks to "take advantage of the destitution, of the very hunger of the foreigner—compelling him to work at the greatest disadvantage in a mining district, or otherwise compelling him to accept of bondage and a squatter's wages."

MANUFACTURE OF LOCOMOTIVES, ETC., IN ALEXANDRIA.

ZERAH COLBURN, good authority, writing from Alexandria, Va., says that Smith and Perkins have been engaged for more than two years in building locomotives, marine engines and cars—400 of the latter having been made. This firm are making extensive improvements, to enable them to complete and deliver three first-class locomotive engines per month. They will occupy three acres of ground, including a foundry of the best arrangement, and having a furnace expressly for casting chilled wheels. A large steam hammer is in use, under which they work all their heavy forgings from the best American stock. They are now building a very beautiful and highly finished engine of forty horse power to propel their additional machinery. Vessels of the largest class can load directly at this wharf. Their heaviest orders have been from the Manassa Gap, Baltimore and Ohio, Pennsylvania Central, and Hudson River railroads, for the last of which they are now completing some very superior coal-burning engines. To Mr. Perkins belongs the credit of the introduction of two of the best improvements upon locomotives. We allude to the slip-tire and the heater. The former, always efficient and durable, has effected an unparalleled saving in the repairs of the heavy engines on the Baltimore and Ohio R. R.; the latter, simple and effective, tends to a very material saving in the fuel for locomotives. Both are adapted to nearly every class of engines in all parts of the country. Mechanics will find this establishment worthy of their notice. The shop is now in want of good hands, and will pay the best wages to such as can do first-class work.

PLUMBIC-ZINC, LEAD AND ZINC COMBINED.

The London correspondent of the *National Intelligencer* writes, that among the new inventions may be mentioned a patent for a combination of lead and zinc, under the name of plumbic-zinc. It consists of distinct layers of each metal, perfectly united in a peculiar process of manufacture—one side thus presenting a surface of pure lead, the other of pure zinc; combining the stiffness of the latter with the durability of the former. A sheet of metal is thus produced, which proves as hard and durable as of lead several times its weight and thickness; while, in peculiar situations, the zinc is laid undermost, and is thus protected from atmospheric action, or the affect of acid vapors or liquid, by the preservative power of the lead. The *Mining Journal* thinks highly of the invention.

MANUFACTURE OF COTTON IN SPAIN.

The manufacture of cotton in Spain has its seat in the provinces of Catalonia. During these latter years many large factories have been established in this district, some of which, as the *Espana Industrial*, will have 25,000 spindles and a suitable number of looms. Their standing capital may be estimated at a value of £3,500,000, with a sum in circulation no less than £280,000. In Malaga, Cadiz, and other places, there are also very remarkable cotton factories, which, together with all the others of the kingdom, consumed, in 1850, a quantity of raw cotton that may be estimated at 29,000,000 lbs., with more than 900,000 spindles.

SUPERIORITY OF AMERICAN WOOL.

According to the following, from the *Economist*, the United States can produce the best wool of any country in the world:—

By recent scientific researches on the part of Peter A. Browne, Esq., of Pennsylvania, it has been established that the United States can outrival the world in wool as in cotton. Thus, Spanish sheep, yielding naturally wool 2,000 to the inch, carried to England, degenerated to 900 to the inch, and, brought to the United States, recovered to 2,100, or finer than the original. The fact being once established that our soil and climate produce finer wool than other countries, will give to our manufacturers invariably the superiority in cloths, if the manufacturer is allied in his interest to the grower.

BRITISH WOOLEN MANUFACTURES.

It appears from a British Parliamentary paper just issued, that, in 1852, the declared value of British woolen manufacture and woolen yarn exported was £10,161,074, or about \$50,000,000.

STATISTICS OF POPULATION, &c.

IMMIGRATION INTO NEW YORK.

The number of immigrants that arrived at the port of New York in 1852, was 296,438, being 6,829 more than the year previous. There was a large increase in German immigration. The statistics of the Commissioners of Emigration show the arrival of Germans to be 48,623 more than in 1851, and a decrease of 45,122 in the number of Irish immigrants. Besides the above, 39,151 citizens arrived. We have obtained the following statistics through Mr. H. DE BURGH, Clerk in the Emigration Office:—

1852.	Ireland.	Germany.	England.	Scotland.	Wales.	France.	Spain.	Switzer- land.	Holland.	Norway.
Jan....	6,661	3,426	609	157	14	233	9	251	129	..
Feb....	2,834	1,378	679	125	62	96	18	94	5	..
March...	13,213	3,816	3,162	294	87	542	25	405	98	..
April...	10,914	11,694	2,929	600	221	660	18	873	156	2
May....	12,875	13,939	2,805	718	450	1,472	33	627	217	1
June...	15,876	22,339	3,845	1,042	525	2,805	27	1,826	228	216
July....	9,193	12,573	2,837	1,526	300	463	62	401	229	1,322
August.	11,615	15,652	3,429	1,256	825	724	62	558	29	150
Sept...	12,430	15,438	5,567	696	158	948	39	533	5	132
Oct....	7,206	6,921	1,788	686	85	275	61	452	23	63
Nov....	8,033	4,926	2,524	114	198	403	67	174	106	1
Dec....	7,284	6,505	1,378	427	106	447	48	275	3	2
Totals..	118,134	118,706	30,972	7,640	2,531	6,878	468	6,469	1,023	1,889

1852.	Sweden.	Denmark	Italy.	Portugal.	Belgium.	West Indies.	Nova Scotia.	Sardinia.	S. America.	Canada.	China.	Sicily.	Mexico.	Russia.	East Indies.	Turkey.	Greece.	Poland.
Jan....	1	2	40	..	2	34	1	..	1	1	1	..	2	1	5	..	3	9
Feb....	2	8	7	1	9	5	2	..	11	..	..	6	..	..	..	1	1	3
March...	2	..	35	..	1	10	6	..	2	2	..	10	..	2	2	..	..	12
April...	3	3	12	..	1	27	2	..	5	3	9	..	6	1	1	1	1	51
May....	9	39	61	5	10	55	2	23	15	4	1	4	..	2	5	..	1	1
June...	304	24	107	..	40	115	10	1	33	8	3	14	1	9	2	1	..	11
July...	367	13	25	5	..	5	11	17	21	21	..	3	5	17	2	1	..	4
August.	527	29	12	10	19	5	..	27	8	22	..	5	2	..	..	..	..	45
Sept....	672	18	37	8	..	9	39	..	14	5	..	..	5	1	1	..	..	20
Oct....	177	3	14	..	..	..	..	..	9	..	..	..	1	..	..	..	..	6
Nov....	..	4	4	..	..	..	..	..	3	2	..	..	..	..	..	..	..	11
Dec....	4	2	5	8	..	..	..	..	1	..	..	..	1	..	..	..	..	13
Totals..	2,068	158	359	37	82	265	73	68	122	48	14	42	22	34	18	4	6	186

1852.	Total.	1852.	Total.
January	11,592	August.....	34,513
February	5,342	September.....	36,777
March.....	21,726	October.....	17,765
April.....	28,193	November.....	16,573
May.....	33,372	December.....	16,507
June.....	49,225	Total.....	296,438
July.....	24,858		

CENSUS OF PERU IN 1850.

PERU IS DIVIDED INTO 11 DEPARTMENTS AND 2 LITORAL PROVINCES.

	Provin.	Depart.		Provin.	Depart.
	Population.	Populat'n.		Population.	Populat'n.
AMAZONAS, (capital, Caihapoyas.)					
Caihapoyas.....	27,728		Huamanga	29,617	
Maynas	15,346	43,074	Andahuaylas.....	19,184	
LIBERTAD, (capital Truxillo.)					
Zaen.....	8,560		Cangallo	20,027	
Pataz	29,394		Huanta	26,858	
Lambayegue.....	24,682		Lucanas	17,401	
Cajamarca.....	46,122		Parinacochas	19,384	132,921
Chiclayo	26,123		Cusco, (capital Cusco.)		
Truxillo.....	8,221		Cusco	41,152	
Chota.....	62,597		Abancay	21,912	
Huamachuco.....	60,854	266,553	Anta	31,300	
ANCACH, (capital, Huaraz.)					
Huaylas.....	84,676		Aymaraes.....	18,228	
Conchucos.....	54,751		Calca.....	16,223	
Huari.....	48,579		Canas.....	37,605	
Cajatambo.....	24,799		Canchis	36,400	
Santa	6,840	219,145	Chumbivilcas	28,250	
ZUNIN, (capital, Cerro de Pasco.)			Cotabambas	23,241	
Pasco.....	70,411		Paruro.....	17,732	
Huanuco	26,799		Paucartambor	17,026	
Huamalies.....	32,027		Quispicanihi	20,700	
Zauja.....	98,712	222,949	Urubamba.....	34,949	349,718
LIMA, (capital, Lima.)			HUANCABELICA, (capital, Huancavelica)		
Chancay	25,600		Huancavelica	17,318	
Lima, (100,000)	125,000		Angaraes.....	20,300	
Canta.....	16,884		Tayacaja	27,151	
Huarochiri.....	14,400		Castrovireyna.....	15,848	70,117
Canete.....	17,653		AREQUIPA, (capital, Arequipa.)		
Yanyos	15,264		Arequipa.....	63,816	
Zca.....	41,500	250,801	Camana.....	14,419	
PUNO, (capital, Puno.)			Caylloma.....	23,448	
Huancane	56,765		Union	17,659	119,336
Chucuito	75,957		MOQUEHUA, (capital, Tacna.)		
Lampa.....	76,468		Arica	18,642	
Azangaro.....	54,833		Moquehuan.....	32,380	
Carabaya.....	22,138	285,661	Tarapaca	10,410	61,432
			PIURA, (litoral province)		
			Callao, "	76,332	
				8,453	
			Total population..		2,106,492

Area, 43,800 square leagues, 20 to 1°. Extent of coast 1,240 miles. Peru is included between 3° 35' and 21° 48' S. Latitude, and 64° 20' and 78° 10' W. Long. of Cadiz, from the mouth of the River Tumbes, to that of the River Loa.

POPULATION OF CITIES IN EUROPE AND AMERICA.

WEBER'S *Volks-Kalender* (People's Almanac) for 1853, published annually at Leipzig, furnishes the following table of the population of the principal cities of Europe and North America. Of European cities, London stands first, Paris second, and Constantinople third. New York stands fourth on the list—no other city having so large a population except the above named cities of Europe; Philadelphia, ninth; Baltimore, twenty-first; and Boston the twenty-eighth. As a matter of curiosity and reference, the table may be worth preserving in the pages of the *Merchants' Magazine*.

We may remark that there are several cities in India, China, and Japan, which are

reported to contain a larger population than that of Paris; but not being in Europe or North America, they are of course excluded from the above list, in which also is omitted the city of Mexico, (which should not have been omitted,) containing a population of about 200,000.

1. London	2,363,141	34. Pesth	125,000
2. Paris	1,053,262	35. Prague	124,181
3. Constantinople	786,990	36. Barcelona	120,000
4. New York	522,766	37. Genoa	120,000
5. St. Petersburg	478,437	38. Cincinnati	116,716
6. Vienna	477,846	39. New Orleans	116,348
7. Berlin	441,931	40. Bristol	115,000
8. Naples	416,475	41. Ghent	112,410
9. Philadelphia	409,354	42. Munich	106,776
10. Liverpool	384,263	43. Breslau	104,000
11. Glasgow	367,800	44. Florence	102,154
12. Moscow	350,000	45. Rouen	100,265
13. Manchester	296,000	46. Belfast	99,660
14. Madrid	260,000	47. Cologne	92,244
15. Dublin	254,850	48. Dresden	91,277
16. Lyons	249,325	49. Stockholm	90,823
17. Lisbon	241,500	50. Rotterdam	90,000
18. Amsterdam	228,800	51. Antwerp	88,800
19. Havana	200,000	52. Cork	86,485
20. Marseilles	195,257	53. Liege	77,587
21. Baltimore	189,054	54. Bologna	75,100
22. Palermo	180,000	55. Leghorn	74,530
23. Rome	172,882	56. Trieste	70,846
24. Warsaw	162,597	57. Konigsberg	70,198
25. Leeds	152,000	58. Sheffield	68,260
26. Milan	151,438	59. The Hague	66,000
27. Hamburg	148,754	60. Leipzig	65,370
28. Boston	136,788	61. Oporto	62,000
29. Brussels	136,208	62. Malaga	60,000
30. Turin	135,000	63. Dantzig	58,012
31. Copenhagen	133,140	64. Frankfort	57,550
32. Bordeaux	130,927	65. Magdeburg	56,692
33. Venice	126,768	66. Bremen	53,156

STATISTICS OF AGRICULTURE, &c.

PRODUCTION IN THE STATES OF NEW YORK AND PENNSYLVANIA.

Articles.		New York.	Pennsylvania.
Improved land	acres	12,403,971	8,628,619
Unimproved land		6,705,992	6,294,728
Cash value of farms	dolls.	454,526,792	407,876,099
Value of farming implements and machinery		22,084,914	14,722,541
Horses	number	447,041	350,398
Asses and mules		963	2,259
Milk cows		931,314	530,224
Working oxen		178,972	61,527
Other cattle		760,356	562,195
Sheep		3,454,400	1,822,357
Swine		1,011,407	1,140,816
Value of live stock	dolls.	74,520,829	41,500,053
Wheat	bush.	13,121,103	15,367,721
Rye		4,150,182	4,805,160
Indian corn		17,869,606	19,845,214
Oats		26,547,022	21,588,156
Tobacco	lbs.	83,612	912,651

Articles.		New York.	Pennsylvania.
Wool.	lbs.	10,043,660	4,481,570
Peas and beans	bush.	741,214	55,231
Irish potatoes		15,374,387	5,980,732
Sweet potatoes		33,511	52,172
Barley		3,582,378	165,584
Buckwheat		3,181,777	2,193,692
Value of orchard produce.	dolls.	1,761,567	723,389
Wine	galls.	9,175	25,590
Value of produce of market gardens.	dolls.	906,127	688,714
Butter	lbs.	81,408,167	39,878,418
Cheese		49,290,744	2,505,034
Hay	tons	3,724,897	1,818,970
Cloverseed	bush.	88,206	125,030
Other grass seeds		96,098	52,913
Hops	lbs.	2,586,277	22,088
Flax		940,637	528,079
Flaxseed	bush.	57,974	41,650
Silk cocoons	lbs.	1,774	285
Maple sugar		10,358,063	2,326,525
Molasses	galls.	56,538	50,652
Beeswax and honey	lbs.	1,729,210	837,609
Value of home-made manufactures	dolls.	1,282,351	749,136
Value of animals slaughtered		13,573,893	8,219,848
Dew-rotted hemp	tons	.....	282
Water-rotted hemp		.....	2,000
Cotton, capital	dolls.	4,176,920	4,528,925
" bales used	number	37,778	44,162
Coal used	tons	1,539	24,189
Value of raw material	dolls.	1,985,973	3,152,530
Hands, male	number	2,708	3,564
" female		3,478	4,099
Value of product	dolls.	3,591,989	5,822,262
Sheeting	yards	44,901,475	45,746,790
Woolen		7,030,604	5,822,866
" cloth		7,924,252	10,099,234
" capital	dolls.	4,459,370	3,005,064
Wool used	lbs.	12,538,286	7,560,379
Value of materials	dolls.	3,838,292	3,282,718
Pig iron	tens	23,022	285,702
" value	dolls.	597,520	6,071,513
" capital in		605,000	8,570,425
Castings	tons	104,588	57,810
" value of	dolls.	5,921,980	5,354,881
" pig used	tons	108,945	69,501
" capital	dolls.	4,622,482	3,422,924
Wrought iron	tons	13,636	182,506
" value	dolls.	1,423,968	8,902,907
" pigs used	tons	8,530	163,702
" raw material, value	dolls.	838,314	5,488,391
Coal	tons	.....	3,500,000

AGRICULTURAL PRODUCTIONS OF ENGLAND.

By reducing the returns of "Produce" furnished by the British Census Commissioners to one common standard, say tons of 2,240 lbs. each—we have the following results:—

	1847.	1849.	1850.	1851.
Cereal crops	2,548,503	2,182,514	2,113,827	2,165,854
Green crops	{ Potatoes ...	2,048,195	4,014,122	3,954,990
	{ Turnips	5,760,616	5,806,848	5,439,005
				6,081,325

The returns of "Stock" are classed under the respective denominations of horses,

mules, asses, horned cattle, sheep, goats, pigs, and poultry; and the following is the result of the classification:—

	1847.	1849.	1850.	1851.
Horses and Mules.....	557,917	548,288	548,719	543,812
Asses.....	126,355	117,939	123,412	136,981
Cattle.....	2,591,415	2,771,139	2,917,949	2,967,461
Sheep.....	2,186,177	1,777,111	1,876,096	2,122,128
Pigs.....	622,459	779,463	927,502	1,084,857
Goats.....	164,068	182,988	201,112	235,313
Poultry.....	5,691,055	6,328,001	6,945,146	7,470,694

Taking the assumed average value per head of each description of stock which the Census Commissioners of 1841 arrived at, after due inquiry, namely, horses and mules, £8 each; asses, £1; horned cattle, £6 10s.; sheep, £1 5s., and poultry, at 6d.; the total value of farm stock was, in 1847, £24,820,547; in 1849, £25,692,616; in 1850, £26,951,959; and in 1851, £27,737,393.

STATISTICS OF OHIO AGRICULTURE.

The *Railroad Record*, published at Cincinnati, furnishes the following interesting statement of the agricultural resources of Ohio:—

It is a very difficult thing to determine the precise proportion in which land in any given State is used. Yet, this is an all important fact, in determining the productivity of land, and the condition of a people. In Ohio, however, we can do this with tolerable accuracy; for both State and National Governments have ascertained different parts of the problem, to which the annual reports of the State Board of Agriculture have added much information. The following are elements gathered from these sources, and the conclusions to which they lead:—

Acres of land returned for taxation.....	24,149,369
Acres of land returned in the census as improved	9,851,493
Acres unimproved.....	14,397,876
Acres cultivated in 1850—in wheat	1,823,916
Acres cultivated in 1850—in corn.....	1,730,220
Acres cultivated in corn and wheat	3,554,156
Cultivated in oats, rye, &c.....	1,000,000
Leaving for grass, meadow, fallow, &c.	5,297,357

It thus appears that the entire land of the State is thus used, viz:—

Cultivated in grain	19 per cent.
Cultivated in grass, meadow, &c.	21 " "
Cultivated in woods and waste.....	60 " "

If we allow 20 per cent for woods and fallow ground, the grain and meadow land of the State may be doubled, with nothing but common cultivation. But, if we allow for the increase of skill and labor, which always result from the increase of population, then 50 per cent more should be added to the total production. As the people now in the State have a *surplus* of one half their whole production, it follows, that Ohio *can support ten millions of people* without feeling the burden of excessive population.

The aggregate crops, animals, &c., produced and sustained on nine millions of acres as above distributed, were as follows for the year 1851, as returned to the Auditor:—

Wheat.....	bush. 35,000,000	Clover seed.....	bush. 103,197
Corn.....	62,000,000	Grass seed.....	37,310
Oats (from the census).....	13,472,743	Flax seed.....	188,188
Rye	425,718	Maple sugar	4,588,209
Barley	354,358	Beeswax and honey.....	804,275
Peas and beans.....	60,168	Molasses	197,398
Irish potatoes	5,057,769	Cattle.....	1,358,947
Sweet potatoes	187,991	Sheep	3,942,928
Buckwheat	638,064	Swine.....	1,964,770
Hay.....	tons 1,443,142	Horses	463,397

In the above catalogue of articles, Ohio is the first State in the Union, in wheat, corn, flax seed, maple molasses, horses, and sheep; proving the State to be the first in the Union in purely agricultural products. In wheat the census crop fell, in consequence of a failure of the crop, a little below Pennsylvania; but as the ordinary crop before and since, was nearly double that of Pennsylvania, it does not change the fact that Ohio is decidedly first in wheat as well as corn.

PRODUCTION OF MAPLE SUGAR IN THE UNITED STATES.

This tree flourishes throughout most of North America. Its height is sometimes 100 feet. It is highly ornamental, and loves a cold climate. It makes the best of fuel. Its great excellence consists in yielding sap for the manufacture of vast quantities of maple sugar in the country during the months of Spring. An open winter, constantly freezing and thawing, is a forerunner of a bountiful crop of sugar. An orchard of maple trees is almost equal to a field of sugar cane of the same area, in the production of sugar. This tree reaches the age of 200 years. The statistics of the United States census for 1850, show that about thirty-four millions of pounds of maple sugar were manufactured in that year.

Of the twenty-seven States in which this sugar is manufactured—

Maine produced	lbs. 1,392,427	Virginia	1,223,908
Vermont.....	5,159,641	Ohio	4,528,548
New York.....	10,310,744	Michigan.....	2,423,997
Pennsylvania.....	2,218,641	Indiana	2,921,638

These are the largest producers. Vermont makes by far the largest quantity in proportion to its territory.

In addition to this large yield of maple sugar in the States, the Indians east of the Mississippi River make annually 10,000,000 pounds, and those west of the river 2,000,000 pounds. The maple sugar product of the Canadas, in 1849, is stated as follows:—Lower Canada 2,303,168 lbs.; Upper Canada 4,160,667 lbs.

Besides the above sugar crop, there was a yield by the sugar maple in the United States, in 1850, of 40,000,000 gallons of maple molasses.

AGRICULTURAL STATISTICS OF NEW HAMPSHIRE.

The following statistics of the agriculture of New Hampshire are derived from the annual message of the Governor of that State:—

Lands under tillage.....acres	2,251,488	Oats.....	973,381
Value of farms.....\$	55,245,997	Peas and beans.....	70,856
" farm implements	2,314,129	Barley.....	70,256
" live stock.....	8,871,901	Buckwheat.....	65,265
" orchard products.....	248,563	Potatoes	4,304,919
" domestic manufactures.....	393,446	Wool	lbs. 1,108,476
Wheat, average crop....bush.	185,658	Butter	6,977,056
Rye	183,117	Cheese	3,196,563
Indian corn.....	1,573,670	Maple sugar.....	1,294,863

CULTURE OF THE MADDER OF COMMERCE.

The experiments which have of late been made with home-grown madder, says the *Lowell Journal*, have proved that, when properly treated, American is equal to the best French-grown madder. Like Turkey, Dutch, or Alsace madders, the American requires the addition of a little chalk, to produce the best effects. During the past winter, the Merrimack Company have used, with great success, some madder grown in Montague, Franklin county, Mass., and are now about to dye some calico with this Massachusetts madder, to be exhibited at the New York Crystal Palace. The Merrimack Company have lately received a small sample of madder grown in Georgia, which proves to be an excellent article, quite equal to that of Massachusetts. We have been informed that there grows wild in Florida, a plant whose root, when eaten by hogs, colors their bones red. Such is the effect of the madder. Doubtless this is an indigenous species, whose cultivation would reward the planter.

MERCANTILE MISCELLANIES.

TRADE AND COMMERCE OF BUFFALO.

REPUBLIC OFFICE, BUFFALO, 23d June, 1853.

To FREEMAN HUNT, *Editor of the Merchants' Magazine.*

DEAR SIR:—My attention has just been directed to an article in the June number of the *Merchants' Magazine*, which had hitherto escaped my notice, calling on me for an explanation of some apparent inaccuracies in the Review of the Trade and Commerce of Buffalo, for 1852, which was prepared by me, and of which I sent you a copy for publication, in March last.

Your correspondent, "Observer," says "in the account of the Commerce of Buffalo in the imports by lake for 1852, is mentioned, page 303, 45,140 lbs. of wool, valued at \$8,387,500! which is a manifest error, either in the *quantity* or the *value*." The error is not in the figures which denote either the *quantity* or the *value*, but in the transposition of the letters "lbs." (pounds,) for "bls." (bales.) It is an error of the proof-reader, and may have been so in the corrected copy which I sent you, though my impression is I marked it in the corrected copy. However, had "Observer" examined any of the other tables, he would have found that "bales" was used in connection with the article of wool in every table, and not "lbs." So much for that "error."

Again he says, "on the same page, in the entrances and clearances at Buffalo, for 1852, it is stated:—

Arrived from foreign ports.....	260 American vessels,	55,820 tons.
" " "	669 foreign " "	80,036 "
Cleared for foreign ports.....	399 American " "	67,556 "
" " "	667 foreign " "	70,949 "

I was not aware that the foreign tonnage arriving at Buffalo so much exceeded the American tonnage, and I am induced to ask you to inquire if it is so." In proof that my statement is correct, and that the foreign tonnage entering this port from foreign ports, actually exceeds the American tonnage as stated above, I have procured the following certificate from the Deputy Collector of this port, which speaks for itself. It is as follows:—

"I find by the books of this office, that at this port, in 1852, there were 262 arrivals of American vessels from foreign ports, of 55,820 tonnage, and 669 foreign vessels from foreign ports, of 80,036 tonnage.

P. HOFFMAN, Deputy Collector.

BUFFALO CUSTOM HOUSE, 23d June, 1853."

One word in explanation. For the information of "Observer," who does not seem to be very well posted in our lake and commercial matters, I would remark that there are six steamers plying between this city and British ports, one making two trips a day, and the others tri-weekly trips, none of which are American vessels. Then again the large number of vessels engaged in the lumber trade, and which are built expressly for that business, are principally owned by men who manufacture lumber on the Canada shore, and are, of course, foreign vessels. But few American vessels are engaged in the trade between our ports and those of Canada, and it is only when other freights are very scarce and dull that they do so. This will explain "error" number two.

Lastly, "Observer" says "And to inquire why the Buffalo statement does not contain a list of *clearances* and *arrivals* at Buffalo for *American ports*, as well as foreign

ports. If "Observer" will take the trouble to turn to page 304 of the review, he will find under the head of "Coasting Trade," the entrances and clearances at Buffalo of American vessels for American ports.

At the time I prepared that review I was connected with the *Commercial Advertiser* of this city, and it was my intention to have made the Review much fuller; but circumstances then beyond my control, prevented me from doing so, and many items which I had prepared, and which might very appropriately have formed part of the Review, were omitted.

Trusting that my explanation may prove satisfactory to yourself and to "Observer," I remain, with great respect, yours.

JOHN J. HENDERSON, Commercial Editor Republic.

COUNSEL TO MERCHANTS' CLERKS.

Make yourself indispensable to your employers; that is the golden path to success. Be so industrious, so prompt, so careful, that if you are absent one half-hour out of the usual time you will be missed, and he in whose employ you are shall say—"I did not dream George was so useful." Make your employer your friend, by performing with minuteness whatever task he sets before you; and above all, be not too nice to lend a hand at dirty work, no matter how repugnant—your business in after years depends upon how you deport yourself now. If you are really good for anything, you are good for a great deal. Be energetic; put your manners into your business; look as well as act with alacrity; appear to feel an interest; make your master's success your own, if you have an honest one. Let your eye light up at his request, and your feet be nimble; there are some who look so dull and heavy, and go with so slow and heavy a pace, that it is irksome to ask them what it is your right to demand of them: be not like these.

Be the arch upon which your employer may rest with safety; let him feel that he may intrust with you uncounted gold.

If you do an errand lightly you begin to lose his confidence; if you forget twice some important request, you cannot be trusted. If you accustom yourself to loose and untidy habits, you will gain no respect, but rather contempt. Avoid theaters, card-rooms, billiard saloons, as you would a pestilence; little faults are like so many loopholes in your character, through which all that is valuable sifts out, and all that is pernicious sifts in to fill the empty places.

But you say you want some pleasure! Make your work a pleasure. There are two ways of seeing sunrise—one with a dull, complaining spirit, that, if it could, would blot out the great luminary with its washy flood of eternal complaints; the other with joyous, lark-like pleasure, soaring out upward, and seeing along the western path gates of gold and palaces of ivory. So there are two ways of doing work; one that depresses the soul by its listless, formal, fretful participation; the other that makes labor a boon and a blessing—pursues it not only for gain, but the higher exaltation of the mental and moral being.

LIBERALITY OF A RUSSIAN MERCHANT.

The following is extracted from a late letter from St. Petersburg:—

The rich sheet iron merchant, Ivan Alexevitch Yakouleff, has most generously presented his majesty, through Count Orloff, an order on the bank for one million of silver roubles (equal to \$770,900,) to make good the defalcation of Politkoffsky in the invalid fund, thus saving former and present members of the commission, with their families, from ruin,—as their estates and other property were all to be taken to indemnify the government.

Politkoffsky was president of the commission for the management of the invalid fund,—and possessed the unbounded confidence of his associates in the commission. His death revealed the defalcation, which probably had been increasing for years until raised to above a million of silver roubles; for all which the emperor held the commission individually responsible. This would have involved most of them in ruin from which the above noble deed of Yakouleff has rescued them.

CHARACTER FOR INTEGRITY.

We have somewhere seen a notice of a Rotterdam thread merchant who had accumulated fifty thousand dollars by his own industry, punctuality and integrity, and it was remarked of him that he never let a yard of bad thread go out of his hands, and would never take more than a reasonable profit. By these means he acquired such entire public confidence, that his customers would as willingly send a blind man or a child to buy for them as go themselves.

We refer to the case not to intimate that we have no such instances among ourselves, but for the purpose of suggesting the great value to any business man of such a character, and the exceeding agreeableness to dealers with him of the confidence he inspires. And we affirm nothing extravagant in saying that the character for strict integrity acquired is of as much real worth to its possessor as the pecuniary savings of his industry. Let such a man lose, by any misfortune, all his money, he is still a man of capital, of weight of influence, and is the superior, on mere business calculations, of many a man of large moneyed means.

But the beauty of the thing is this, that any man however small his business and limited his capital, has just as good an opportunity of winning confidence as the millionaire. Integrity in small things is even more impressive than integrity in great things. And after all that men may say in praise of enterprise, skill, shrewdness and tact of particular business men, there is one character towards which all minds instinctively render their reverence—and that is, the man who would rather be honest than wealthy, and who prefers integrity to gain.

ARAB HONESTY.

At some brackish springs called Belaliss, Mr. Layard was awakened by the alarm that two of his horses were stolen. Sahiman, under whose escort he was traveling, felt his honor so much concerned that he wandered till daybreak in search of the thieves. Finally, having tracked them, and pronounced with unerring sagacity of what tribe they were, he made an oath that the missing property should be returned. After six weeks' search and extensive journeyings, he fulfilled his vow and brought back the animals, without asking, apparently without permitting any reward.

Suthun, another companion of Mr. Layard, was often sent across the Desert with perhaps three thousand dollars in money, and always with perfect confidence—his only reward being an occasional silk dress, or a few camel-loads of corn for his family.

Of late years the wool of the Bedouin sheep has been in demand in the European market, and a large trade in the article is even now going on in the region of the explorations. Money is generally advanced by the English representative, Mr. Rassan, months before sheep-shearing, without any written or other guaranty, to tribes of whom nothing is heard after the payment until the receipt of the produce, amounting sometimes to thousands of pounds in value. And on the part of the Arabs such scrupulous honesty is observed, that one Bedouin made the whole journey from Bagdad to Mosul solely to pay the balance of an old wool account not amounting to a dollar!—*Layard's Second Expedition.*

TRAFFIC IN CIRCASSIAN SLAVES.

Sarim Pasha, the Governor of Trebizon, has, we understand, says the *Liverpool Albion*, been deprived of his government through the representations of the Russian Consul in that place, whose complaint concerning some Circassian slaves he refused to investigate. Trebizon is one of those ports in the Black Sea where Circassian and Georgian slaves are frequently landed. In the Russian territories the seizing and selling of slaves has been long since put a stop to. Parents, however, who wish to send their daughters to Constantinople are allowed to do so under the pretence of sending them to relatives there, and under the guardianship of proper people. In this case each individual is furnished with a passport. It happens, however, that occasional bands of marauders from Lazistan or the coasts of Circassia, land in Mingrelia, and pounce upon the villages, carrying off young girls and children into slavery, in order to convey them to Constantinople, where they find a ready sale at high prices. These expeditions being usually performed in small boats, they are obliged to put in at the ports of the Black Sea for food and water. The Russian Consuls stationed there do their utmost to destroy this illicit traffic. A number of these slaves having arrived a short time ago without passports, the Russian Consul claimed them as Rus-

sian subjects, but the Pasha turned a deaf ear to his representations, and allowed the slave-dealers to depart with their cargo, whereupon the Consul lowered his flag, and wrote to Prince Menchikoff, whose influence at the Porte was sufficient to deprive the Pasha of his place.

HONESTY IN BUSINESS.

Two brethren were riding in a wagon one day; the conversation turned on the manner of doing business.

"Brother," said one, "if we would succeed in storekeeping, we cannot be strictly upright in every little thing. It is impossible; we could not live."

"It is contrary to religion not to be upright," replied the other. "Honesty is as much a part of religion as prayer, or reading the Bible. A man may pray and read the Bible, and yet if he be not strictly an honest man, he cannot be a religious one."

"I don't know about that; we must live—that is my doctrine."

"But you pretend to be a religious man, don't you? You are a professor as well as I am."

"But we must live. I shall break down in my store if I do not shave a little."

"And you will be more likely to break down if you do. I tell you, my brother, honesty is not only a part of religion, but it is the best policy, too; and I will venture to say, the man who is honest will succeed better in his store than the one who is not. The man who is unjust, either in little things or great things, is a dishonest man, and an irreligious man; and the day of judgment will convince him of it fearfully."

The above conversation, in substance, took place in one of the counties of the State of New York. The storekeeper did business in a village near which they were riding. Since that time he has failed in his business, and has been obliged to leave the village.

I wish every merchant, every storekeeper, would lay this truth to heart: "A man who is not strictly an honest man cannot be a religious man."—*Christ. Ad. & Journal.*

FRENCH MARRIAGE BROKERS.

A late Paris letter, referring to the prevalent custom of marriage brokerage, says:—

I have wondered how matrimonial agents—those people that advertise desirable husbands and wives, comfortable settlements in life, dowries, and amiable tempers—manage to make both ends meet. A commissary of police has just arrested an extensive dealer in this way, and the secret has leaked out. He advertised himself as corn doctor to all the crowned heads, and sold patent medicines. He was also an agent for marriages, and had a fine lot of young ladies, with dowries varying from 20,000f. to half a million. He had upon his books the names of daughters of members of the Academy and Senate, of a Marshal of France, and sundry German princes. Gentlemen that applied for wives paid an entrance fee, and in the course of the negotiation sundry other claims, in all a considerable sum. When it became necessary to bring the affair to a conclusion, a quantity of faded lolettes, with a parcel of elderly females acting as their mothers, were introduced, and the applicant was only too glad to make his escape. He generally abstained from making the swindle public, for fear of being laughed at. The investigations that have been commenced, will probably lead to the breaking up of all the matrimonial offices in Paris.

THE SMALL TRADE OF NORFOLK, VIRGINIA.

It appears, by a statement in the *Norfolk News*, that in 1852 about 1,800 barrels of eggs, each containing about 100 dozen, were shipped from that port. The return, including the price of the oats in which they were packed, is estimated at \$20 per barrel, making a total of \$36,000 received for eggs. A vast amount of oysters, vegetables, and poultry, is also annually sent away, for which the sum of \$300,000 is a moderate calculation, averaging \$1,000 per day the whole year. One gentleman, who has devoted himself to the business for some years, has realized a profit of about \$300,000. The quantity of rags for manufacturing purposes annually sent from the city is also large. One firm alone sends away about half a million pounds, and the whole amount does not fall short of one million. The cost of these is, on an average, about 3½ cents a pound, and realize a profit of 25 to 30 per cent, making the large sum of about \$45,000 as the annual product of old rags.

THE BOOK TRADE.

1.—*A Manual of Political Economy.* By E. PESHINE SMITH. 12mo, pp. 269. New York: G. & P. Putnam & Co.

Mr. Smith attempts in the present volume, "to construct a skeleton political economy upon the basis of party physical laws, and thus obtain for its conclusions that absolute certainty which belongs to the positive sciences. How far he has succeeded in this we are not prepared to decide. He thinks that Henry C. Carey, (whose writings are familiar to all who take an interest in political economy,) has conclusively refuted the theory of Ricardo in regard to occupation of land, which for more than forty years has been dominant with English economists; and he says that he owes whatever his own study may have effected, to his having been put upon the path and furnished with the clue, in the writings of Mr. Carey, and therefore makes no pretensions on the score of originality, which as against others he might maintain. The work is divided into nine chapters, and treats of the several topics under the following general heads, viz.: 1. The law of endless circulation in matter and force; 2. The formation of soils, and their adaptation to occupation and culture; 3. The gratuitous co-operation of the natural agents with human labor; 4. Rent; 5. Wages; 6. Profits; 7. Exchange; 8. Money and price; 9. Government. These topics are treated concisely, but with so much perspicuity and clearness as to be readily comprehended by the intelligent reader. The work is highly suggestive, and therefore well worth the attentive perusal of all who are not too old or too wise to learn.

2.—*Livingston's Law Register for 1853.* By JOHN LIVINGSTON, of the New York Bar, Commissioner Resident in New York for every State in the Union, and Notary Public. 8vo, pp. 247. New York: office of Law Magazine.

This volume, which is compiled with great care, contains the post-office address of every lawyer in the States, also the names and residences of the sheriffs and searching officers in the several States; a list of all the counties, with their shire towns; the legal rates of interest, with the penalties for usury in every State; the legal forms for the acknowledgment of deeds; together with the names and salaries of the judges of the highest courts of each State, and a great variety of other information alike useful to merchant and lawyer. Mr. Livingston, by his numerous publications, is rendering an important service to the great business interests of the country, and we trust he will be amply remunerated for his enterprise.

3.—*Memorials and Correspondence of Charles James Fox.* Edited by the Right Hon. Lord JOHN RUSSELL, M. P. 2 vols, 12mo, pp. 369 and 316. Philadelphia: Blanchard & Lea.

The late Lord Holland employed himself for many years in preparing the materials of a Life of Fox, and left the work in its unfinished state for Lord John Russell to complete. Although not woven into a continuous narrative, it is nevertheless an interesting piece of political and literary biography; but its greatest value will be found in the letters of Mr. Fox to Lord Holland, written between 1790 and 1805. The importance of the period through which Mr. Fox led, with consummate ability, the whig party, the line he took in opposing the American and French wars, preferring the interests of the people to their applause, the singular candor, boldness, simplicity, and kindness of his character, cannot fail of imparting to the work a high degree of interest.

4.—*Journal of an African Cruiser; comprising Sketches of the Canaries, the Cape De Verds, Madeira, Sierra Leone, and other Places of Interest on the Western Coast of Africa.* By HORATIO BRIDGE, U. S. Navy. Edited by NATHANIEL HAWTHORNE. 12mo, pp. 179. New York: George P. Putnam & Co.

This little volume contains information touching an interesting part of the world that will be new to many. The author's accounts of Liberia and descriptions of the settlements of the various nations of Europe along the western coast of Africa, and of their tribes, and their trade and intercourse with the whites, will add much to our stores of knowledge.

5.—*A General Introduction to the Sacred Scriptures, in a Series of Dissertations, Critical, Hermeneutical, and Historical.* By Rev. JOSEPH DIXON, D. D., Professor of Sacred Scripture and Hebrew in the Royal College of St. Patrick, Maynooth, now Archbishop of Armagh, and Primate of all Ireland. 2 vols. in one, 8vo., pp. 517. Baltimore: John Murphy & Co.

This work, we presume, is designed to fill a similar place in the theological literature of the Catholics, that Horne's introduction has long held in that of the Protestant church. The principal object, to quote the words of the reverend author, has been "to present to the intelligent Catholic, in plain, simple, and clear language, facts and doctrines highly interesting to a Christian." To Catholics the work will need no recommendation, (especially from outsiders,) coming, as it does, from one whose learning and merits have raised him to the highest dignity in the church of Ireland. It is a little singular, if, as Protestants affirm, the reading of the Scriptures is denied the lay members of the Romish church, that one of the prelates high in authority in that church should write an introduction to the forbidden books of the Bible. Horne's book abounds in brilliant specimens of Protestant zeal, and we presume the present volume is not deficient in that element of religious faith. The work is published in our Catholic friend John Murphy's best style, and that is saying all that we need say to those who are familiar with the taste and liberality displayed in all his publications —especially those, like the present, that possess a standard character.

6.—*The United States Illustrated, in Views of City and Country.* With Descriptive and Historical Articles. Edited by CHARLES A. DANA. 4to., Nos. 1 and 2. New York: Hermann J. Meyer.

Two parts of this new serial are before us. The first is devoted to "the East, or the Seaboard States," and the second to "the West, or the States of the Mississippi Valley and the Pacific." Each contains four engravings, with appropriate letter press, historical or descriptive illustrations. In commencing the work, the publisher and editor say that their object will be to render it in every respect worthy of its title, and deserving the national patronage; and judging from the enterprise of the former and the taste and judgment of the latter, we presume they will be successful in their efforts. In aiming to lay before the American people faithful and spirited illustrations of what is characteristic and beautiful in scenery, and memorable in the public buildings of all portions of the country, they declare it to be their intention to spare no pains and shrink from no expense which may be requisite to attain a high pitch of excellence in either department. In pursuing such a course, they may safely rely upon a large circle of readers.

7.—*The English Humorists of the Eighteenth Century.* A Series of Lectures. By W. M. THACKERAY, author of "Esmond," "Pendennis," "Vanity Fair," &c.

This volume embraces the seven lectures delivered in several of the cities of the United States by the author, who, we see it stated, received some £5,000 sterling—near \$25,000. The subjects of the lectures are Swift, Congreve, and Addison; Steele, Prior, Gray, and Pope; Hogarth, Smollett, and Fielding; Sterne and Goldsmith, and Charity, and Humor. In treating of the English humorists of the past age, he dwells upon the men and their lives, rather than upon their books. They were well worth hearing, and will be found almost equally well worth reading.

8.—*The Art Journal*, for July, 1853. Vol. v. London and New York: Geo. Virtue.

The present number of this superb work is illustrated with two fine steel engravings, from pictures in the Vernon Gallery, viz: "Musidora," painted by T. Gainsborough, and engraved by P. Lightfoot; and "The Sepulchre," painted by W. Etting, and engraved by S. Sangster. The engravings on wood in this number are numerous, and like those in former numbers, excellent. As a whole, this work is beyond all question the best of its class ever produced.

9.—*The History of the Democracy of the United States.* By the author of the *Republic of the United States*. Part 3. Boston: H. Wentworth.

It is the aim of the author to embrace in this work a complete view of the different political parties, and of the measures adopted by the Colonies and by the Government of the United States since the Declaration of Independence, sufficient to render it a standard of reference on political subjects. It is published in numbers of sixty pages, with a portrait in each, at the price of twenty-five cents. Within the field above mentioned this will be a valuable work.

10.—*Rhymes with Reason and Without.* By B. P. SHILLABER. 12mo., pp. 336. Boston: Abel Tompkins.

We are glad that the opportunity of friends sufficiently overcame the scruples existing in the mind of Mr. Shillaber, as to lead to the publication of this collection of his poetical productions. Several of the pieces were as familiar to us as "household words," and all, we believe, have appeared either in the "Boston Post" or "Carpet Bag," and many of them have gone the rounds of the newspaper press throughout the country. There is a quiet vein of wit and humor running through almost every stanza in the collection that will remind the reader of poor Hood; indeed, Mr. Shillaber's mind seems to have been cast in a similar mould. We heartily thank the author for gratifying his friends with the "liniments" of his honest face and fine intellectual-looking head, and we hope soon to see a collection of his prose productions, embracing, of course, all his "sayings and doings" in the character of Mrs. Partington.

11.—*A History of England, from the First Invasion by the Romans to the Accession of William and Mary, in 1688.* By JOHN LINGARD, D. D. From the last revised London edition. In thirteen volumes. Vol. 1, 12mo., pp. 361. Boston: Phillips, Sampson & Co.

This is the latest history of England, claiming original authority, so far as it is a record of the events of the past seventeen centuries of the Christian era. For the whole time previous to that treated by Mr. Macaulay this history may fairly be considered leading authority by the general reader. Dr. Lingard, it is well known, was a Roman Catholic; but most critics have awarded to him the credit of attempting complete impartiality in his discussion of questions bearing on the history of the Roman Church. The first volume commences with the invasion of Rome, 55 years before Christ, and brings the history down to the polity of the Anglo-Saxons in 1066.

12.—*Lectures on the Science of Life Insurance, addressed to families, societies, trades, professions, and considerate persons of all classes.* By MOSES L. KNAFF, M. D., Secretary to the Fraternal Mutual Life Insurance Company. 12mo., pp. 241. Philadelphia: E. S. Jones & Co.

The main object of the author of these lectures is to present what he conceives to be the strong claims of life insurance to families, and persons of "a considerate and provident turn of mind in a truthful and reliable dress, and cheap, popular form, so that no obstacle may stand in the way of reliable information on the subject reaching all classes of persons." He has contrived to divest the subject, as much as possible, of technicalities and dry mathematical calculations; and his book will no doubt induce many to avail themselves of the supposed benefits of life insurance.

13.—*Clouds and Sunshine.* By the author of "Musings of an Invalid," "Fun in Earnest," "Fancies of a Whimsical Man," &c. 12mo., pp. 254. New York: John S. Taylor.

The previous works of Mr. Townsend, who is understood to be the author, have been gradually making their way into notice. Indeed, they have already secured a choice circle of thoughtful and intelligent readers. The present work is in the form of conversations on topics of very general interest; and the conversations are cleverly carried on; and abound in good common sense philosophy; and possess, moreover, a fair share of naturalness and truthfulness, enlivened by bright thought and happy illustrations. The author's style is easy, chaste, and natural.

14.—*Considerations on some Recent Social Theories.* 12mo., pp. 158. Boston: Little, Brown & Co.

This little work has been written from a sincere desire to help the progress of sound judgment and right principle. The position which we as a people hold is such, that questions in social and political philosophy and practice have immediate claims on our careful attention. It appears to be a plain expression of the author's earnest convictions.

15.—*City and Country Life; or Moderate Better than Rapid Gains.* By MRS. MARY IDE TORREY. 18mo., pp. 381. Boston: Tappan & Whittemore.

The aphorism of the latter part of the title of this tale is happily illustrated by an agreeable and well written story. Novels of this character may be read with profit and pleasure.

16.—*New Themes Condemned: or, Thirty Opinions upon "New Themes and its Reviewer," with answers to some notice of "A Review by a Layman." "Hints by a Layman." "Charity and the Clergy."* 12mo, pp. 153. Philadelphia: Lippincott, Grambo & Co. New York: O. A. Roerback.

This is an attempt to put down a book by authority. A Presbyterian writer obtains letters from thirty men of note in that denomination, who condemn a book entitled "New Themes for the Protestant Clergy." There are added the opinions of a number of newspapers of the same denomination, all of the same sort. Now, whatever may be the character of the work in question—and its aim is to show that the clergy, with all their piety, are destitute of Christian charity—this method of proceeding against it cannot be countenanced for a single moment. This appeal to an *auctoritate ecclesiae* is an effort to put down public sentiment in a manner which should excite the indignation of all true men.

17.—*Plain Directions for obtaining Photographic Pictures by the Calotype and the Energiatype, also upon Albumenized Paper and Glass, by Collodion and Albumen, etc.* Including a Practical Treatise on Photography, with a Supplement, containing the Heliochrome Process; also Practical Hints on the Daguerreotype; being simple directions for obtaining Portraits, Views, Copies of Engravings, Drawings, Sketches of Machinery, &c., by the Daguerreotype Process, including the latest improvements in Fixing, Coloring, and Engraving the Pictures, with a Description of the Apparatus. Illustrated with Engravings. 18mo, pp. 234. Philadelphia: A. Hart.

The title of this work on Photography explains its contents and character. It is divided into three parts. The first and third were prepared by J. H. Caucher, and the second by Gustavus Le Gray, of Paris.

18.—*Guide Book of the Atlantic and St. Lawrence, and St. Lawrence and Atlantic Railroad, including a full description of all the interesting features of the White Mountains.* By S. B. BECKETT; with illustrations from original sketches by C. E. Beckett, engraved on wood by Barker, Smith & Andrews. 12mo, pp. 180. Portland: Sanborn & Carter, and H. J. Little & Co.

This volume furnishes the traveler with reliable information of every kind relative to the important region traversed by the great natural railway between Portland and Montreal. The engravings are from sketches taken expressly for the work, and are very clearly executed. The work is a valuable one, furnishing, as it does, much information touching a region of which little has heretofore been known.

19.—*Carlolina and the Sanfedesti; or a Night with the Jesuits at Rome.* By EDMUND FARRENGE. 12mo, pp. 481. New York: John S. Taylor.

Around "the past, Catholicism, concealing her fondling despotism under the cloak of religion, the present Republicanism inscribing on its broad, open flag, liberty, the liberation of mankind," (we quote from the introduction,) has the author woven the woof of this story. The work will find plenty of readers among zealous Protestants; and, aside from its attacks upon the tendencies of Catholicism, of which we have nothing to say, pro or con, at this time and in this place, the story is managed with skill, and displays more than usual ability in the plot and the execution of it.

20.—*Travels in Egypt and Palestine.* By J. THOMAS, M. D. 12mo, pp. 173. Philadelphia: Lippincott, Grambo & Co.

Although this little volume will hardly compare in vigor and originality of style with the "Scenes in Palestine" of the Rev. Frederic W. Holland, the devoted pastor of a congregational church in Cambridge, it nevertheless gives, along with those incidents of travel which are always new, the first and unbiased impressions of the author, during a rapid tour amid scenes that must ever have an interest for minds not altogether absorbed in the pursuits of the present place and hour.

21.—*Discourses on the Beatitudes.* By E. H. CHAPIN. Boston: Abel Tompkins.

The "Beatitudes," as recorded in St. Matthew's Gospel, embody the sum and substance of Christ's teaching; they inculcate that spirit from whence flows all that is really good, beautiful, and true in Christian life and character. Mr. Chapin has, in the eight discourses of the present volume, enforced with his usual eloquence and power the graces and virtues they so aptly suggest.

22.—*The Life and Letters of Stephen Olin, D. D., LL. D., Late President of the Wesleyan University.* 2 vols. 12mo., pp. 361 & 486. New York: Harper & Brothers:—

The private letters of Dr. Olin, of which this memoir is for the most part comprised, furnish an admirable autobiography. "They are," to use his own words, "leaves from his own book—first impressions of his feelings, and certainly true to the life—a lifetime report of his mind and heart." Written in all the freedom of confiding friendship, they reveal his ample and deep-toned nature. The sculptured forms of the vase are thrown into bolder relief by the light within, than by a "clear shining" without." The editor has linked together these significant memorials of Dr. Olin's character, and thus produced a work that will be read with pleasure and profit by all who can appreciate "a life not spent in vain on the earth."

23.—*Every-Day Scripture Readings; with Brief Reviews and Practical Observations, for the Use of Families and Schools.* By the Rev. JOHN L. BLAKE, D. D., Past Pastor of St. Matthew's Church, Boston. 12mo., pp. 468.

This volume is designed to furnish the beauties of the oldest book in existence, and hence venerable for its antiquity. It cannot fail of being interesting as an artistic composition, and it presents a well connected outline of "sacred history." Dr. Blake has reduced the narrative points of the Gospel to a regular harmony on the plan of Newcombe. The notes of the editor are brief, practical, and generally to the point, and must be acceptable to all who do not like the labor of thinking for themselves.

24.—*The Romance of the Revolution, being a History of the Personal Adventures, Heroic Exploits, and Romantic Incidents, as enacted in the War of Independence.* Edited by OLIVER B. BUNCE. 12mo., pp. 484. New York; Bunce & Brother.

This volume embraces a collection of the most romantic and stirring events of the Revolutionary war, together with anecdotes of the brave men and women who figured conspicuously in the "times that tried men's souls." To preserve these events, and perpetuate the heroic deeds of that memorable era in the world's history in the affections of the American people is the professed object of the compilation. It is a work that will interest the young and old, grave and gay.

25.—*Voices from the Silent Land; or Leaves of Consolation for the Afflicted.* By Mrs. H. DWIGHT WILLIAMS. 12mo., pp. 273. Boston: John P. Jewett & Co.

This volume embraces some hundred and fifty pieces in prose and verse, from the writings of almost as many authors, which were collected by the compiler "in the freshness of a very deep affliction, and completed before its daily gushing anguish had passed away." The heart-stricken mourner, as he broodeth over his forever hushed but beloved dead, may turn to the pages of this book and find thoughts and words full of hope and consolation, something to assuage the soul in its deep and pensive sadness.

26.—*An Historical Sketch of Robin Hood and Captain Kidd.* By WILLIAM W. CAMPBELL. 12mo., pp. 259. New York: Charles Scribner.

Judge Campbell has contrived to work up an interesting historical narrative of two noted characters of by-gone days,—Robin Hood, and William Kidd. The latter was a partner with men who exerted a controlling influence in the affairs of government on both sides of the Atlantic, and his career, as related in the present volume, will not be without interest to the curious reader.

27.—*The Land of the Caesar and the Doge.* Historical and artistic, incidental, personal, and literary. By WM. FURNISS. 12mo., pp. 384. New York: Cornish, Lamport & Co.

These very pleasant sketches of Italy and the Sicilies do not aspire to the importance of a continued narrative. They are scenes of pleasure and gratification, thoughtful, impressive, and conveying instruction respecting men and manners which will be perused with gratification and profit. The author writes with smoothness, ease, and gracefulness.

28.—*Father Brighthopes; or an Old Clergyman's Vacation.* By PAUL CREYTON. Boston: Phillips, Sampson & Co.

A pleasant book for children, and one that will be read and admired for its primitive sketches of home life and rural scenes.

29.—*The Popular Educator*. New York: Alexander Montgomery.

A monthly magazine of forty-four pages in the quarto form. Each number of this work, which was commenced in May, is divided into twelve different departments viz.: the department of languages, of natural history, of mathematics, physical science, industrial science, fine arts, anthropology, history, philosophy, political science, cultivation, and miscellaneous. Each department is filled with appropriate matter, suited to the wants of all who seek general information, in a concise and comprehensive form, divested of that prolixity which too often encumbers the more elaborate treatises on the same topics.

30.—*The Illustrated Magazine of Art*; containing Illustrations from the various Departments of Painting, Sculpture, Architecture, History, Geography, Art, Industry, Manufactures, Scientific Inventions and Discoveries, &c. 8vo, pp. 376. New York: Alexander Montgomery.

The first volume of this monthly ended with June, 1853. It forms a beautiful volume, rich in its pictorial embellishments, and in its letter press illustrations, bearing upon all topics mentioned in the title page, which we have quoted at the head of this notice. It is published monthly at the low price of \$1 50 per annum.

31.—*The Art Journal* for June, 1853. London and New York: George Virtue.

This work continues to maintain its high character as a work of art. The present number contains three engravings on steel from that inestimable collection, the Vernon Gallery, viz.: the Borders of Venice; a Woodland View, and the Way-worn Traveler, either of which is worth the price of the work.

32.—*The Shady Side: or, Life in a Country Parsonage*. By a Pastor's Wife. 12mo. pp. 349. Boston: John P. Jewett & Co.

Life has its shady as well as its sunny side, and our author has taken its shady side; and yet the reader may not turn away from the *somber title* of the book fearful of too dark a picture, for even her Shady Side has its lights. The annals of parsonage life are not without interest, when, as in the present instance, they are related in an easy and graphic manner.

33.—*Illustrated History of Hungary*. By EDWIN L. GODKIN. With upwards of one hundred Engravings. New York: Alexander Montgomery.

This first number of a new and popular history of Hungary from the earliest time, as the Romans found them, to the present, will be deeply interesting to all who desire to learn the history of that patriotic and noble race of men. This number is amply illustrated with engravings of men and things connected with its past and present history.

34.—*The Camel Hunt: A Narrative of Personal Adventure*. By J. W. FABENS, author of "Life on the Isthmus." New York: G. P. Putnam & Co.

This is a new edition, somewhat enlarged, of a work that has been received with great favor by the reading public. It was favorably noticed in a former number of this magazine.

35.—*The Alps, Switzerland, Savoy and Finland*. By REV. CHARLES WILLIAMS. New York: Alexander Montgomery.

This work is to be completed in successive monthly parts of sixty-four pages, royal octavo. Each part is illustrated with appropriate views of scenery, &c., in the interesting countries described by the author.

36.—*The Star in the Desert*. By the author of "A Trap to catch a Sunbeam," "Old Jolliffee," &c., &c. Boston: James Munroe & Co.

Those who have read the other works of this author will require no recommendation from us. It fully sustains the high reputation acquired by the author in her previous efforts.

37.—*The Emigrants; or First and Final Step*. A True Story. By ALMIRA SEYMOUR. Boston: James Munroe & Co.

The main incidents of this story, we are told by authority, are all true. It is well written, and its moral tone and tendency unexceptionable.